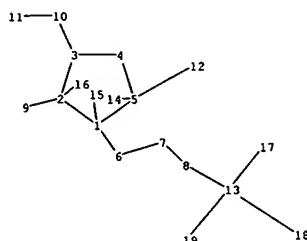
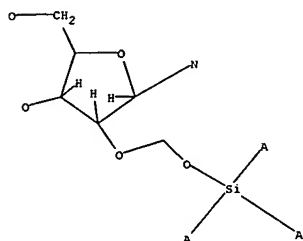


EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1808	536/22.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/03/29 21:06
L2	1621	536/25.3.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/03/29 21:06
L3	325	536/25.31.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/03/29 21:06
L4	346	536/26.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/03/29 21:06
L5	286	536/27.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/03/29 21:06
L6	298	536/28.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/03/29 21:06
L7	3809	1 2 3 4 5 6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/03/29 21:06

EAST Search History

L8	45	7 and 2'-protect\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/03/29 21:07
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S5	1	S4 and phosphoric	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/03/29 17:08
S6	1	S5 and substituent	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/03/29 21:06



chain nodes :

6 7 8 9 10 11 13 14 15 16 17 18 19

ring nodes :

1 2 3 4 5 12

chain bonds :

1-6 1-15 2-9 2-16 3-10 5-12 5-14 6-7 7-8 8-13 10-11 13-17 13-18 13-19

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-2 1-5 1-6 2-3 2-9 3-4 4-5 5-12 6-7 7-8 13-17 13-18 13-19

exact bonds :

1-15 2-16 3-10 5-14 8-13 10-11

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS7:CLASS8:CLASS9:CLASS10:CLASS11:CLASS12:Atom 13:CLASS
14:CLASS15:CLASS16:CLASS17:CLASS18:CLASS19:CLASS

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LOGINID:sssptal600txm

PASSWORD:

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	ENTRY	SESSION
FULL ESTIMATED COST	41.10	315.42
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-14.82

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FILE 'REGISTRY' ENTERED AT 17:25:22 ON 29 MAR 2007

L1 STRUCTURE UPLOADED
L2 10 S L1 SSS SAM
L3 136 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 17:25:52 ON 29 MAR 2007

L4 19 S L3

FILE 'CAPLUS' ENTERED AT 17:59:14 ON 29 MAR 2007

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L6 0 S US 2006173173/PN
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L11 0 S WO 2004049274
L12 0 S 04049274
L13 0 S 04049274/PN
L14 13841 S VICINAL
L15 26 S L14 AND RIBONUCLEOSIDE
L16 0 S L5 AND PHOSPHORIC
L17 1 S L15 AND PHOSPHORIC
L18 37 S L14 AND PHOSPHORIC
L19 1 S L18 AND SUBSTITUENT

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LOGINID:sssptal600txm

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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with preparation role
NEWS 4 DEC 18 CA/CAPLUS patent kind codes updated
NEWS 5 DEC 18 MARPAT to CA/CAPLUS accession number crossover limit increased
to 50,000
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multiple databases
NEWS 16 FEB 15 PATDPASPC enhanced with Drug Approval numbers
NEWS 17 FEB 15 RUSSIPAT enhanced with pre-1994 records
NEWS 18 FEB 23 KOREAPAT enhanced with IPC 8 features and functionality
NEWS 19 FEB 26 MEDLINE reloaded with enhancements
NEWS 20 FEB 26 EMBASE enhanced with Clinical Trial Number field
NEWS 21 FEB 26 TOXCENTER enhanced with reloaded MEDLINE
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NEWS 23 FEB 26 CAS Registry Number crossover limit increased from 10,000
to 300,000 in multiple databases
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NEWS 26 MAR 20 MARPAT now updated daily
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MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

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=>

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L1 STRUCTURE UPLOADED

=> s l1 sss sam

SAMPLE SEARCH INITIATED 17:25:40 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 45 TO ITERATE

100.0% PROCESSED 45 ITERATIONS 10 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 498 TO 1302
PROJECTED ANSWERS: 11 TO 389

L2 10 SEA SSS SAM L1

=> s l1 sss full

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SEARCH TIME: 00.00.01

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=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.10	172.31

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=> s 13

L4 19 L3

=> d bib abs hitstr 1-19 14

L4 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1036493 CAPLUS
DN 145:390381
TI Short interfering RNA with modified overhangs
IN Andreou, Ioanna; Pitsch, Stefan; Muller, Evelyne; Reymond, Luc
PA Qiagen GmbH, Germany
SO PCT Int. Appl., 170pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006102970	A2	20061005	WO 2006-EP2131	20060308
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
PRAI	EP 2005-5027	A	20050308		

OS MARPAT 145:390381

AB The present invention refers to a double-stranded siRNA mol. comprising a sense strand and an antisense strand which is essentially complementary to the sense strand, each of the sense and the antisense strands comprising at least 17 nucleotides (nt), the siRNA further comprising at least one overhang at the 5' and/or 3' end, wherein the overhang residue or overhang residues are chemical modified and selected independently from each other from the group consisting of: (a) 2'-deoxy modified nucleotides; (b) 2'-methoxy modified nucleotides; (c) two nucleosides linked by a 3' to 5' or 2' to 5' formacetal linkage; (d) nucleotides modified at the 2'-position by a -CH₂-O-(CH₂)₂-OH group; and (e) nucleotides comprising in the 3'-position a -CH₂-O-(CH₂)₇-CH₃ group.

IT 220230-58-0 253586-21-9 253586-22-0

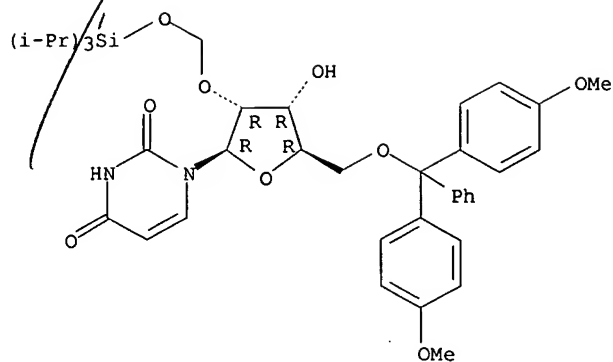
RL: RCT (Reactant); RACT (Reactant or reagent)
(short interfering RNA with modified overhangs)

RN 220230-58-0 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

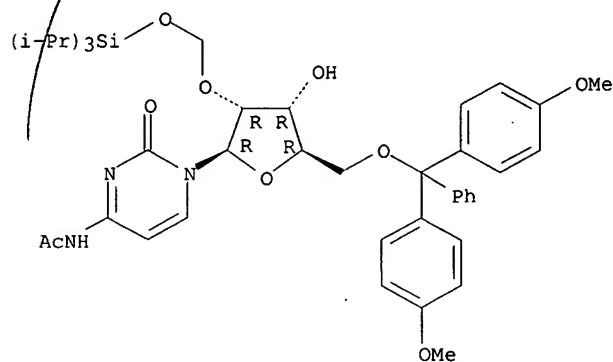
10/534,160



RN 253586-21-9 CAPLUS

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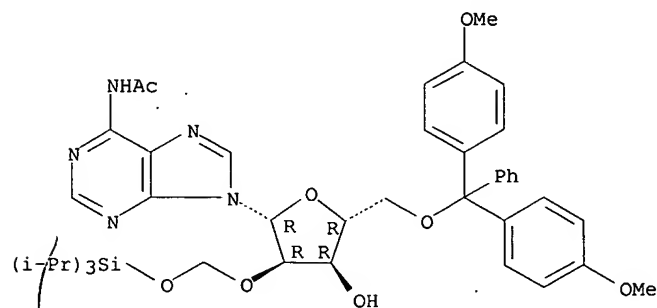
Absolute stereochemistry. Rotation (+).



RN 253586-22-0 CAPLUS

CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 910792-13-1P 910792-14-2P 910792-15-3P
 910792-16-4P 910792-17-5P 910792-18-6P
 910792-19-7P 910792-20-0P 910792-21-1P
 910792-22-2P 910792-23-3P 910792-24-4P
 910792-25-5P 910792-26-6P 910792-27-7P
 910792-28-8P 910792-29-9P 910792-30-2P
 910792-31-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (short interfering RNA with modified overhangs)

RN 910792-13-1 CAPLUS

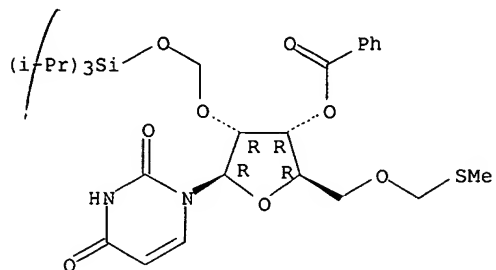
CN Uridine, 5'-O-[(methylthio)methyl]-2'-O-[[[tris(1-

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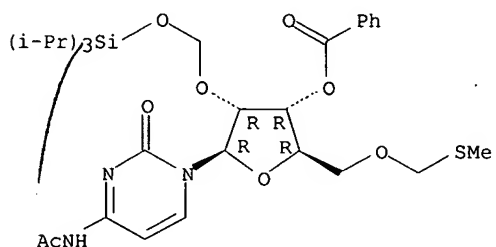
Absolute stereochemistry.



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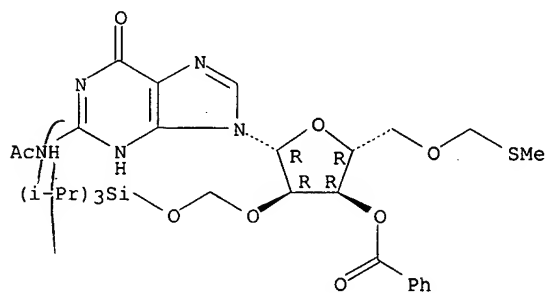
Absolute stereochemistry.



RN 910792-15-3 CAPLUS

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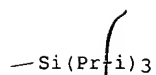
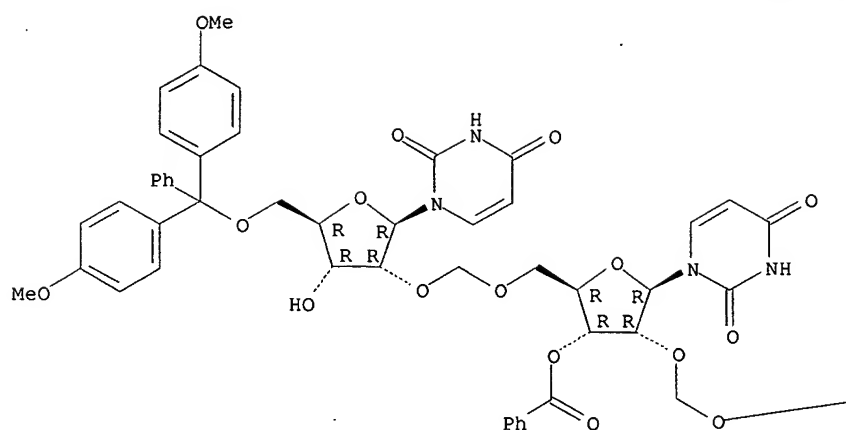
Absolute stereochemistry.



RN 910792-16-4 CAPLUS

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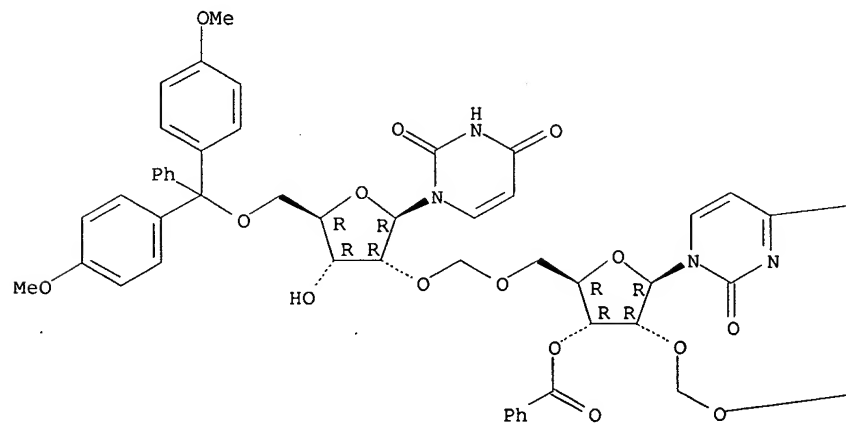
Absolute stereochemistry.



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Absolute stereochemistry.



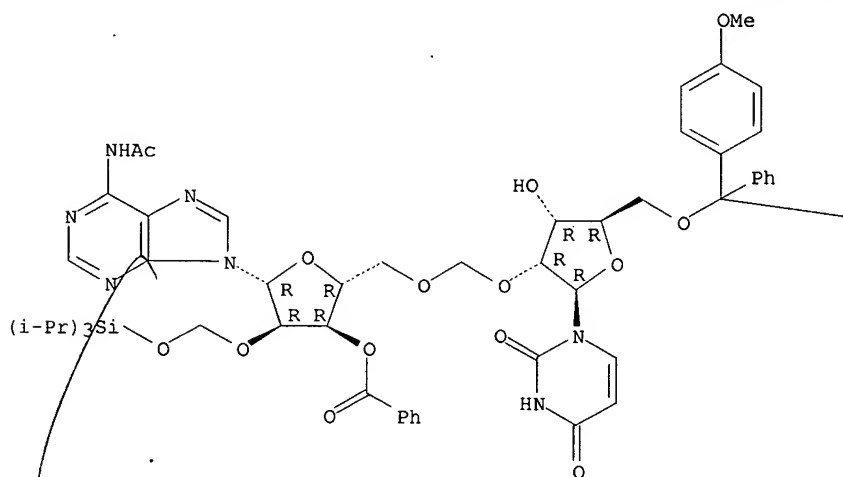
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—Si(Pr-i)₃

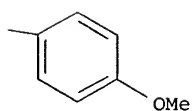
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Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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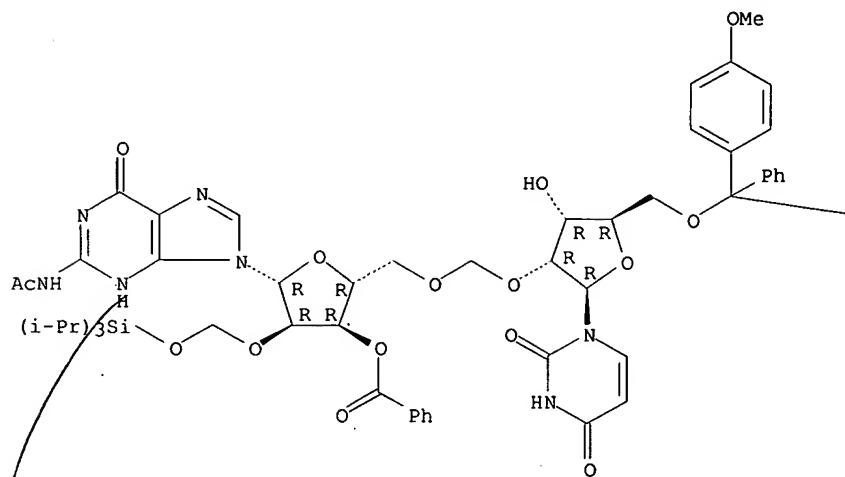
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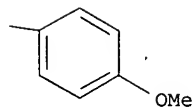
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Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

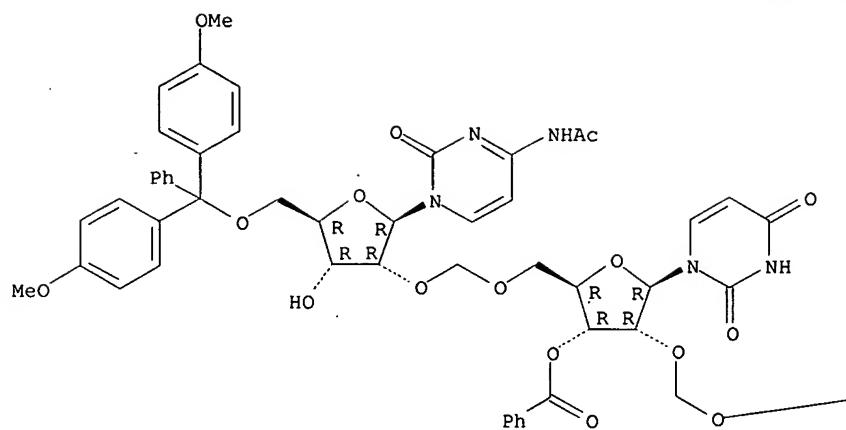


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CN Uridine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-dephosphinocytidylylmethylene-(2'→5')-2'-O-[[[tris(1-methylethyl)silyl]oxy)methyl]-, 3'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

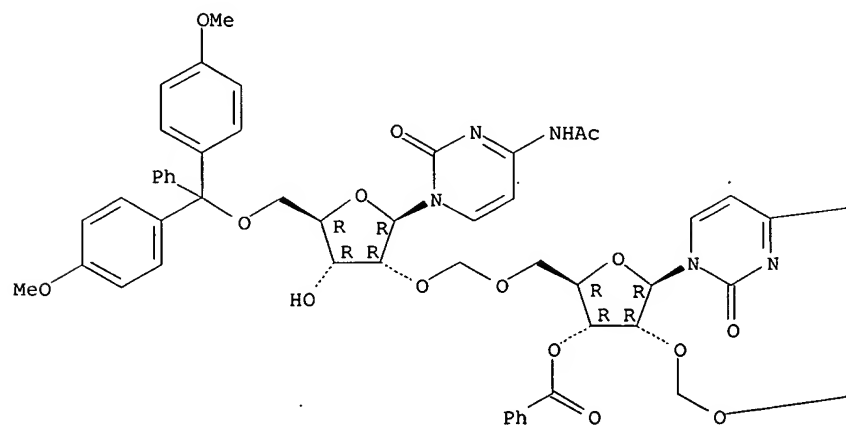
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—Si(Pr-i)₃

RN 910792-21-1 CAPLUS

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Absolute stereochemistry.



—NHAc

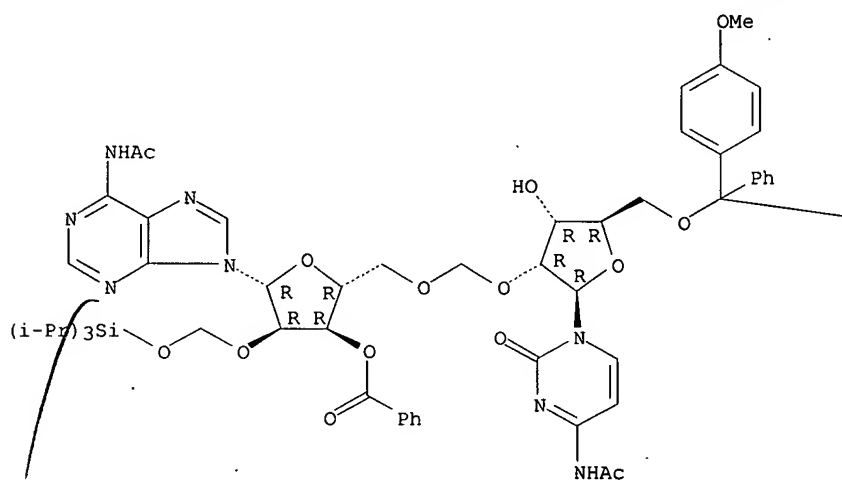
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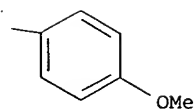
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Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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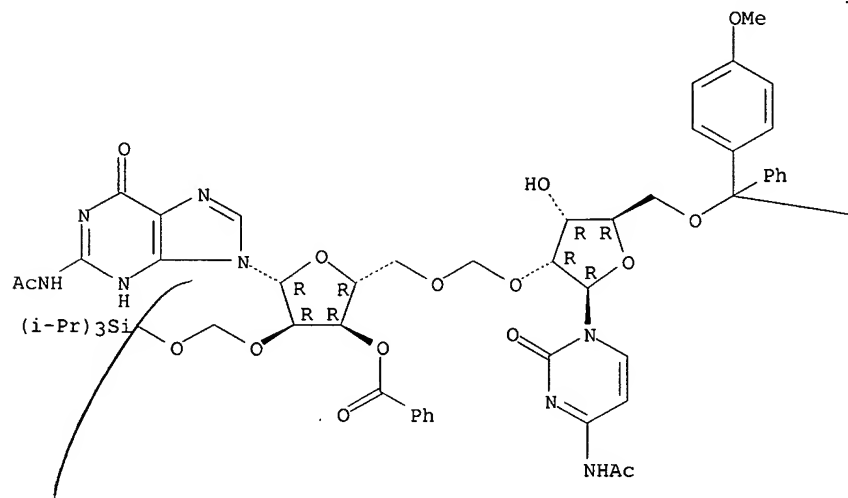
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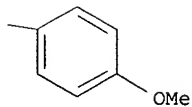
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Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

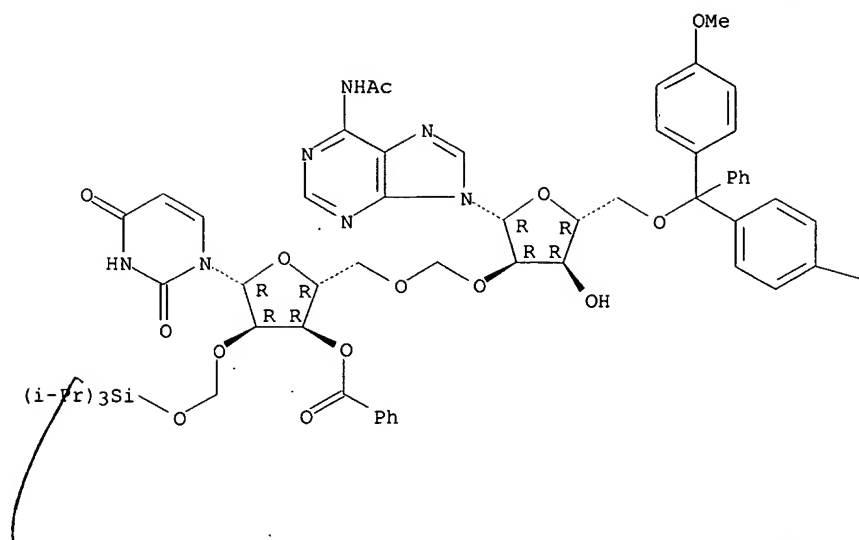


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Absolute stereochemistry.

PAGE 1-A



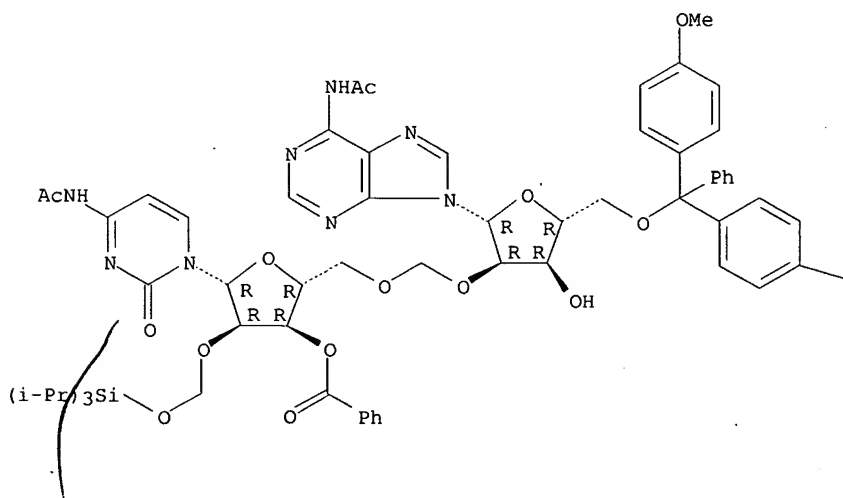
PAGE 1-B

OMe

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Absolute stereochemistry.

PAGE 1-A



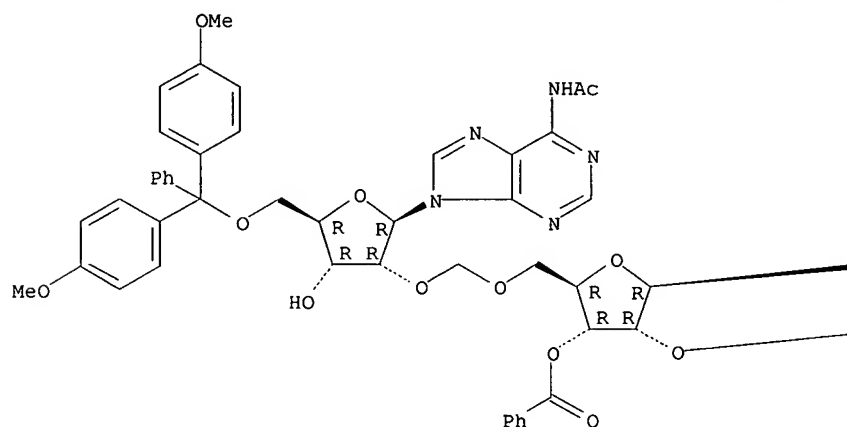
McIntosh

—OMe

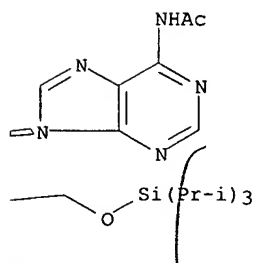
RN 910792-26-6 CAPLUS
 CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-dephosphinicoadenylylmethylene-(2'→5')-N-acetyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



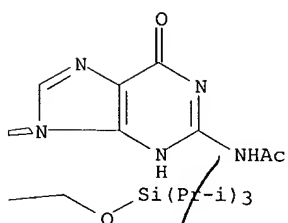
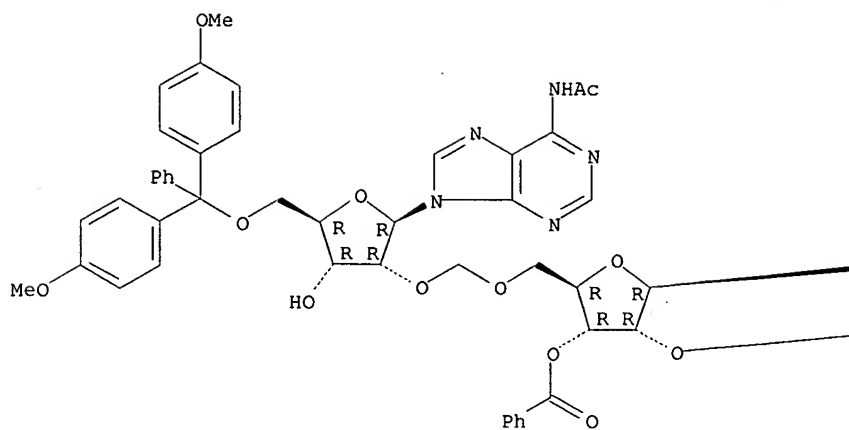
PAGE 1-B



RN 910792-27-7 CAPLUS
 CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-dephosphinicoadenylylmethylene-(2'→5')-N-acetyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

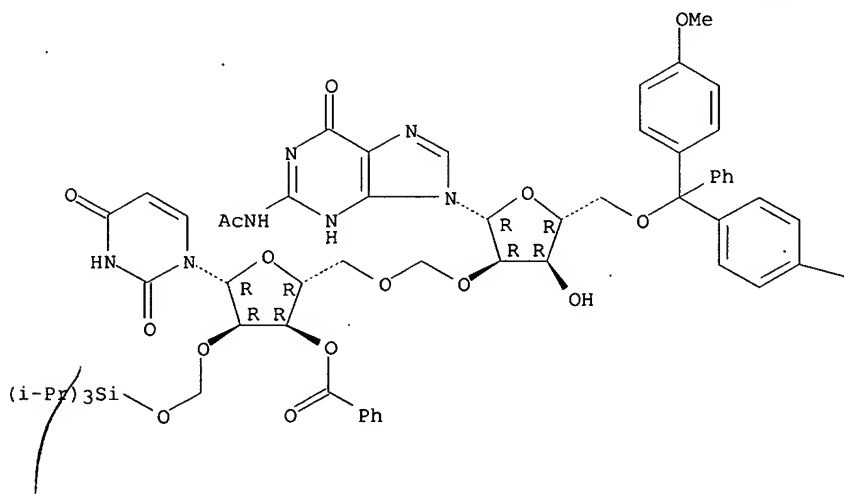
McIntosh



RN 910792-28-8 CAPLUS

CN Uridine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-dephosphinocoguanlylmethylene-(2'→5')-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



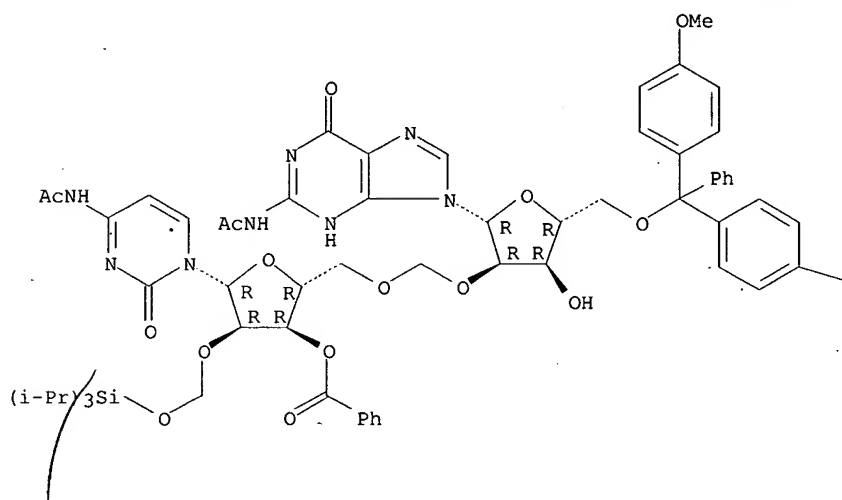
McIntosh

— OMe

RN 910792-29-9 CAPLUS
 CN Cytidine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-dephosphinoguananylmethylene-(2'→5')-N-acetyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

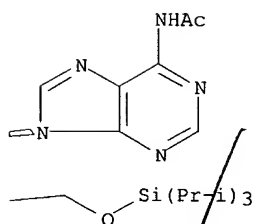
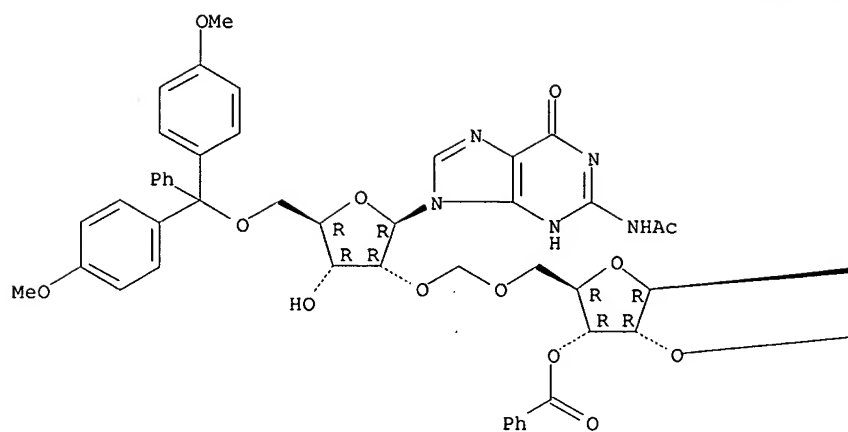


PAGE 1-B

— OMe

RN 910792-30-2 CAPLUS
 CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-dephosphinoguananylmethylene-(2'→5')-N-acetyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-benzoate (9CI) (CA INDEX NAME)

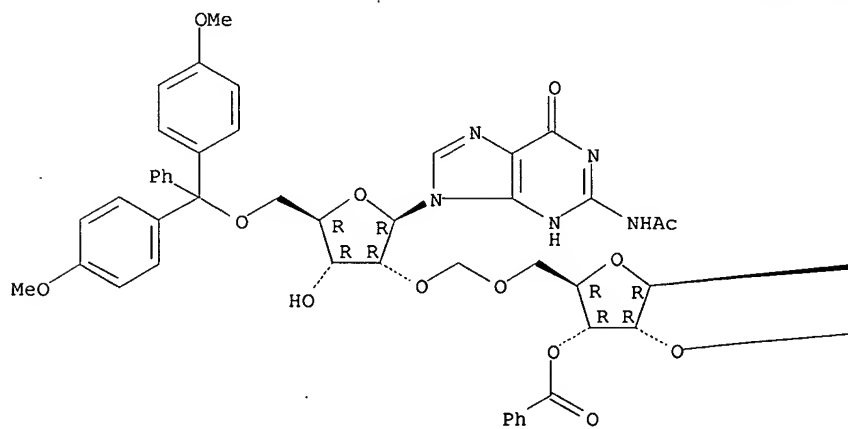
Absolute stereochemistry.

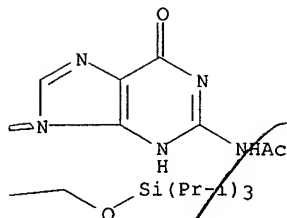


RN 910792-31-3 CAPLUS

CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-dephosphinoguananylmethylene-(2'→5')-N-acetyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-benzoate (9CI) (CA INDEX NAME)

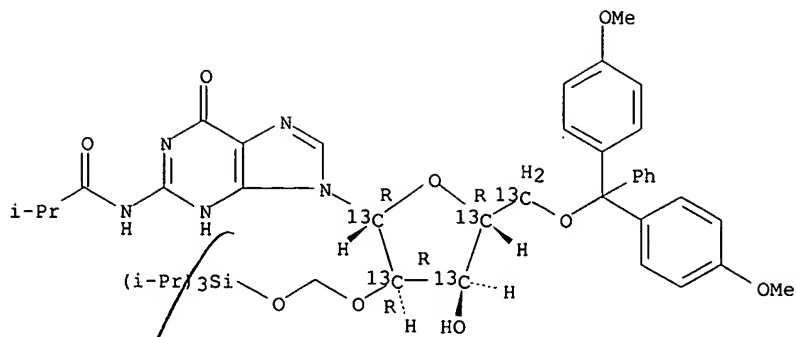
Absolute stereochemistry.





L4 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2006:827215 CAPLUS
 DN 145:372108
 TI Short, synthetic and selectively ^{13}C -labeled RNA sequences for the NMR
 structure determination of protein-RNA complexes
 AU Wenter, Philipp; Reymond, Luc; Auweter, Sigrid D.; Allain, Frederic H.-T.;
 Pitsch, Stefan
 CS Institut des Science et Ingenierie Chimiques, EPFL-BCH, Ecole
 Polytechnique Federale de Lausanne, Lausanne, 1015, Switz.
 SO Nucleic Acids Research (2006), 34(11), e79/1-e79/8
 CODEN: NARHAD; ISSN: 0305-1048
 PB Oxford University Press
 DT Journal
 LA English
 AB The authors report an optimized synthesis of all canonical 2'-O-TOM
 protected ribonucleoside phosphoramidites and solid supports containing
 [$^{13}\text{C}5$]-labeled ribose moieties, their sequence-specific introduction into
 very short RNA sequences and their use for the structure determination of two
 protein-RNA complexes. These specifically labeled sequences facilitate
 RNA resonance assignments and are essential to assign a high number of
 sugar-sugar and intermol. NOEs, which ultimately improve the precision and
 accuracy of the resulting structures. This labeling strategy is
 particularly useful for the study of protein-RNA complexes with
 single-stranded RNA in solution, which is rapidly an increasingly relevant
 research area in biol.
 IT 911129-60-7P 911129-62-9P 911129-64-1P
 911129-66-3P 911129-68-5P 911129-70-9P
 911129-72-1P 911129-74-3P 911129-76-5P
 911129-83-4DP, immobilized
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (short, synthetic and selectively ^{13}C -labeled RNA sequences for NMR
 structure determination of protein-RNA complexes)
 RN 911129-60-7 CAPLUS
 CN Guanosine-1',2',3',4',5'- $^{13}\text{C}5$, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-
 (2-methyl-1-oxopropyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI)
 (CA INDEX NAME)

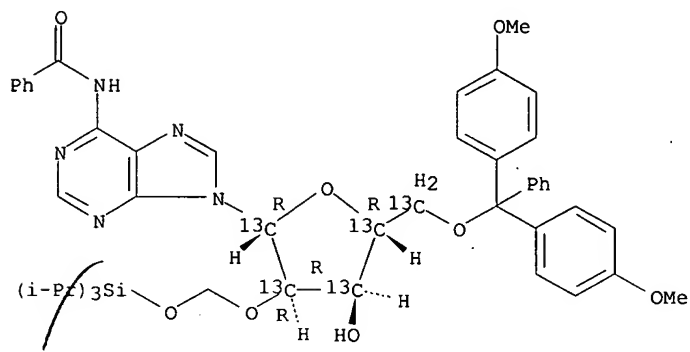
Absolute stereochemistry.



RN 911129-62-9 CAPLUS

CN Adenosine-1',2',3',4',5'-13C5, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-(9CI) (CA INDEX NAME)

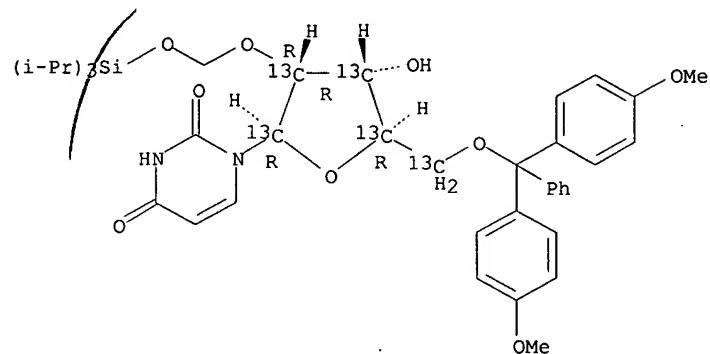
Absolute stereochemistry.



RN 911129-64-1 CAPLUS

CN Uridine-1',2',3',4',5'-13C5, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-(9CI) (CA INDEX NAME)

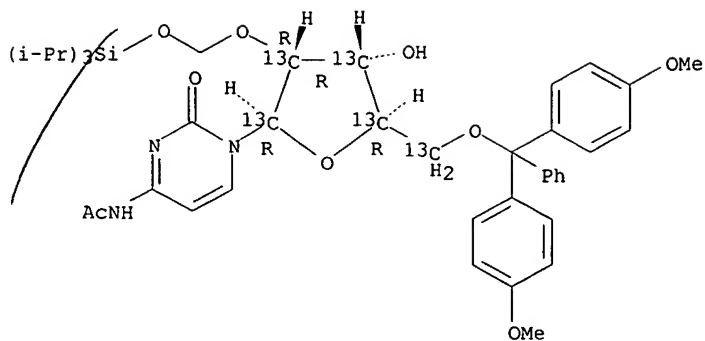
Absolute stereochemistry.



RN 911129-66-3 CAPLUS

CN Cytidine-1',2',3',4',5'-13C5, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-(9CI) (CA INDEX NAME)

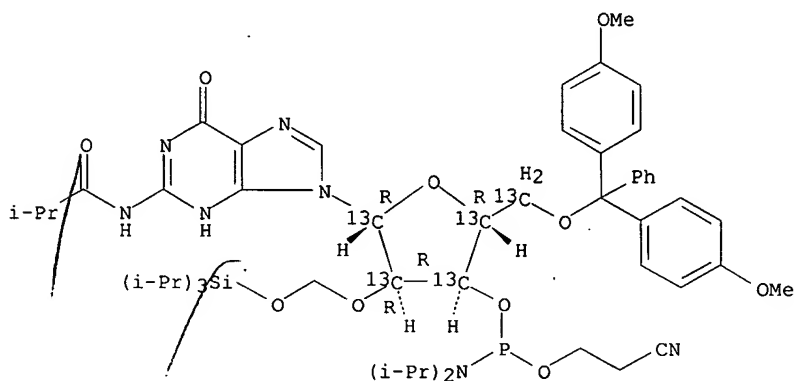
Absolute stereochemistry.



RN 911129-68-5 CAPLUS

CN Guanosine-1',2',3',4',5'-13C5, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

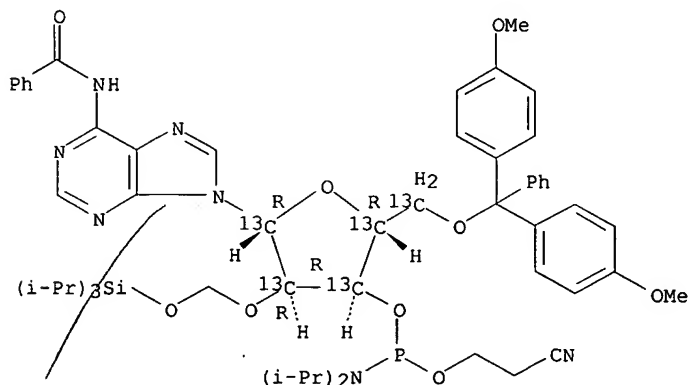
Absolute stereochemistry.



RN 911129-70-9 CAPLUS

CN Adenosine-1',2',3',4',5'-13C5, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

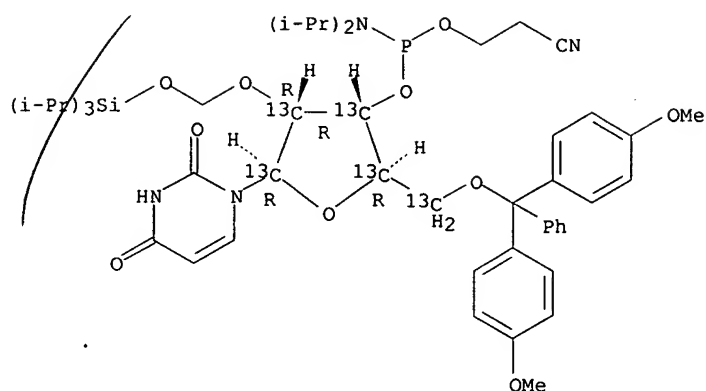
Absolute stereochemistry.



RN 911129-72-1 CAPLUS

CN Uridine-1',2',3',4',5'-13C5, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

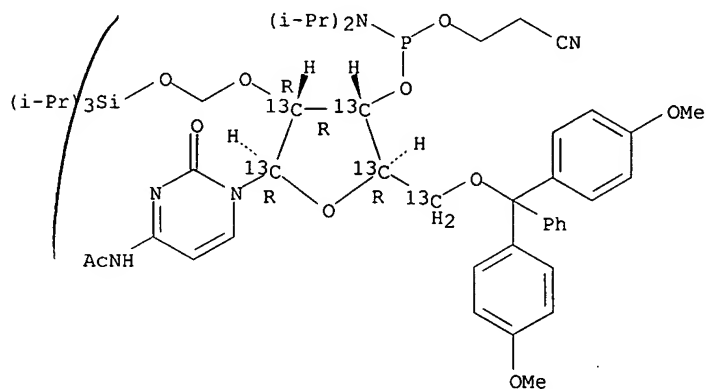
Absolute stereochemistry.



RN 911129-74-3 CAPLUS

CN Cytidine-1',2',3',4',5'-13C5, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

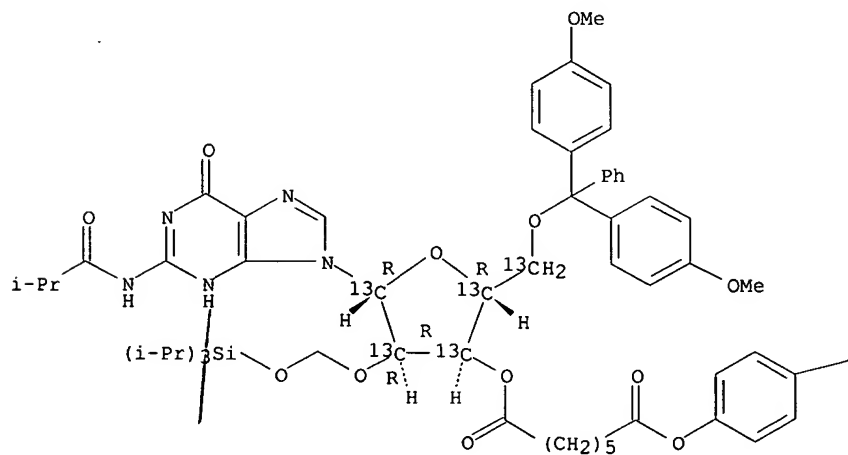


RN 911129-76-5 CAPLUS

CN Guanosine-1',2',3',4',5'-13C5, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-(4-nitrophenyl heptanedioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

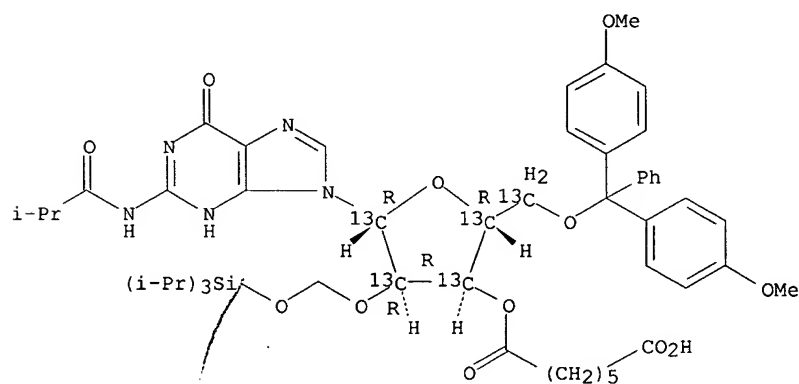
PAGE 1-A



—NO₂

RN 911129-83-4 CAPLUS
 CN Guanosine-1',2',3',4',5'-13C5, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-(hydrogen heptanedioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2005:1328282 CAPLUS
 DN 144:412749
 TI Preparation of modified RNA sequences for biological research
 AU Pitsch, Stefan; Ackermann, Damian; Denarie, Cyrille; Meylan, Frederic; Meyyappan, Muthulaniappan; Muller, Evelyne; Peer, Andreas; Porcher, Sebastien; Reymond, Luc; Stutz, Alfred; Wenter, Phillip; Wu, Xiaolin
 CS Lab. Nucleic Acid Chem., Ecole Polytechn. Fed. Lausanne EPFL-BCH, Lausanne, CH-1015, Switz.
 SO Chimia (2005), 59(11), 808-811
 CODEN: CHIMAD; ISSN: 0009-4293
 PB Swiss Chemical Society
 DT Journal; General Review
 LA English
 AB A review. The group is working on the development of reliable access to biol. relevant, long, and modified RNA sequences. Here, the authors briefly present the chemical synthesis of such sequences with 2'-O-triisopropylsilyloxymethyl (= 2'-O-tom) protected ribonucleoside phosphoramidites, their template-directed enzymic ligation, and some examples of modified nucleotides, designed to promote structural and biol. studies.
 IT 220230-62-6 253586-12-8 253586-13-9
 253586-14-0
 RL: BSU (Biological study, unclassified); BIOL (Biological study)

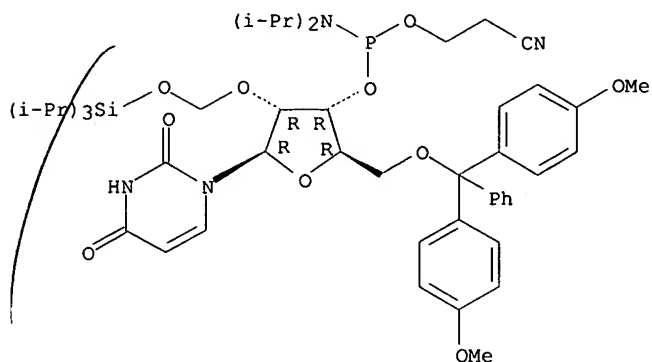
McIntosh

(synthesis of RNA sequences using 2'-O-triisopropylsilyloxymethyl protected ribonucleoside phosphoramidites)

RN 220230-62-6 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

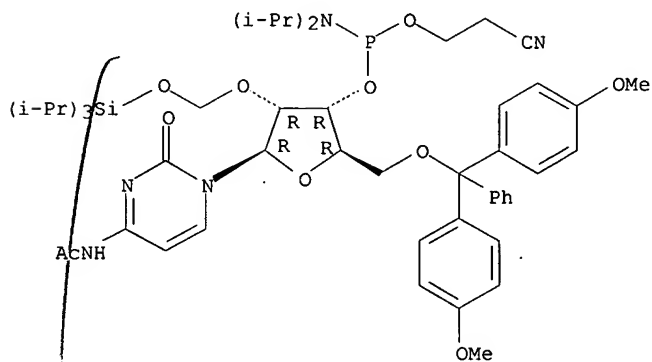
Absolute stereochemistry.



RN 253586-12-8 CAPLUS

CN Cytidine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

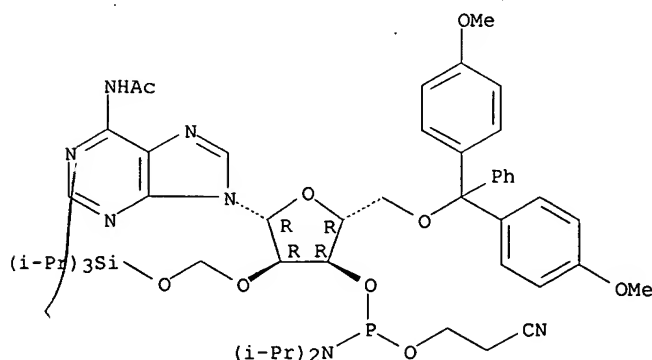
Absolute stereochemistry.



RN 253586-13-9 CAPLUS

CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

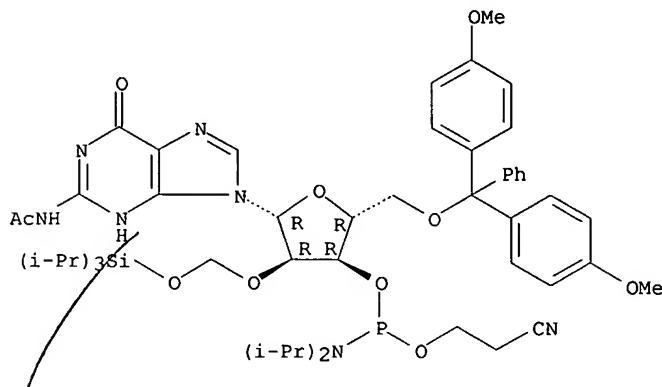


10/534,160

RN 253586-14-0 CAPLUS

CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1226038 CAPLUS

DN 144:88508

TI Synthesis of 2'-O-[(triisopropylsilyl)oxy]methyl(=tom)-protected
ribonucleoside phosphoramidites containing various nucleobase analogs

AU Porcher, Sebastien; Pitsch, Stefan

CS Laboratory of Nucleic Acid Chemistry, EPFL-BCH, Lausanne, CH-1015, Switz.

SO Helvetica Chimica Acta (2005), 88(10), 2683-2704

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

OS CASREACT 144:88508

AB The first results of a study aiming at an efficient preparation of a large variety of 2'-O-[(triisopropylsilyl)oxy]methyl(=tom)-protected ribonucleoside phosphoramidite building blocks containing modified nucleobases are reported. All of the here presented nucleosides have already been incorporated into RNA sequences by several other groups, employing 2'-O-tbdms- or 2'-O-tom-protected phosphoramidite building blocks (tbdms=(tert-butyl)dimethyl-silyl). We now optimized existing reactions, developed some new and shorter synthetic strategies, and sometimes introduced other nucleobase-protecting groups. The 2'-O-tom, 5'-O-(dimethoxytrityl)-protected ribonucleosides N2-acetyl-iso-cytidine, O2-(diphenyl-carbamoyl)-N6-isobutyryl-isoguanosine, N6-isobutyryl-N2-(methoxy-acetyl)purine-2,6-diamine ribonucleoside (=N8-isobutyryl-2-[(methoxyacetyl)amino]adenosine), 5-methyluridine, and 5,6-dihydro-uridine were prepared by first introducing the nucleobase protecting groups and the dimethoxytrityl group, resp., followed by the 2'-O-tom group. The other presented 2'-O-tom, 5'-O-(dimethoxytrityl)-protected ribonucleosides inosine, 1-methyl-inosine 18, N6-iso-pent-2-enyl-adenosine, N6-methyl-adenosine, N6,N6-dimethyl-adenosine, 1-methyl-guanosine, N2-methyl-guanosine, N2,N2-dimethyl-guanosine, N6-(chloroacetyl)-1-methyladenosine, N6-(1S,2R)-2-[(tert-butyl)dimethyl-silyl]oxy-1-[2-(4-nitrophenyl)ethoxy]carbonylpropylamino carbonyl-adenosine (derived from L-threonine) and N4-acetyl-5-methyl-cytidine were prepared by nucleobase transformation reactions from standard, already 2'-O-tom-protected. Finally, all these nucleosides were transformed into the corresponding phosphoramidites, which are fully compatible with the assembly and deprotection conditions for standard RNA synthesis based on 2'-O-tom-protected monomeric building blocks.

IT 312709-92-5 672298-89-4 672298-94-1

872548-42-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of 2'-O-[(triisopropylsilyl)oxy]methyl(=tom)-protected
ribonucleoside phosphoramidites containing various nucleobase analogs)

RN 312709-92-5 CAPLUS

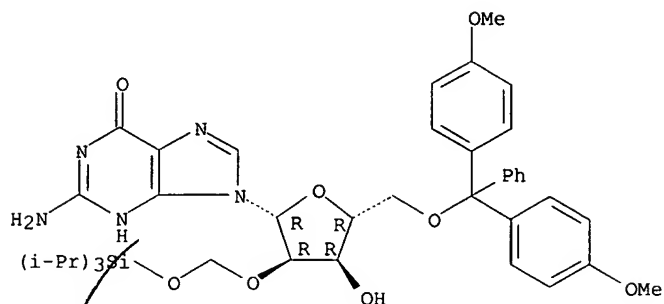
CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-

McIntosh

10/534,160

methylethyl)silyl]oxy)methyl]- (9CI) (CA INDEX NAME)

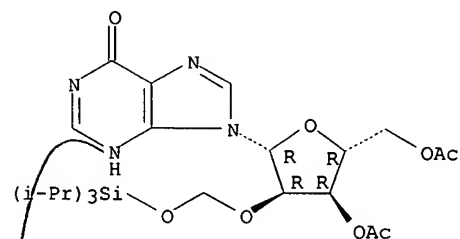
Absolute stereochemistry.



RN 672298-89-4 CAPLUS

CN Inosine, 2'-O-[[[tris(1-methylethyl)silyl]oxy)methyl]-, 3',5'-diacetate
(9CI) (CA INDEX NAME)

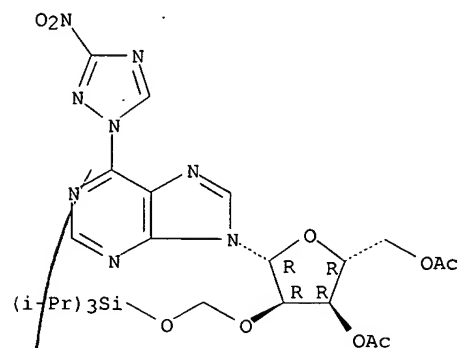
Absolute stereochemistry.



RN 672298-94-1 CAPLUS

CN 9H-Purine, 9-[3,5-di-O-acetyl-2-O-[[[tris(1-methylethyl)silyl]oxy)methyl]-
β-D-ribofuranosyl]-6-(3-nitro-1H-1,2,4-triazol-1-yl)- (9CI) (CA
INDEX NAME)

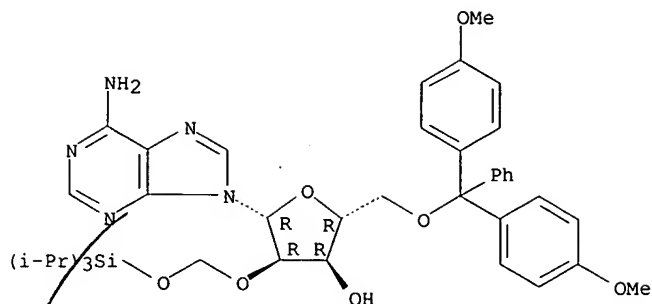
Absolute stereochemistry.



RN 872548-42-0 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-
methylethyl)silyl]oxy)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 312709-86-7P 661471-80-3P 661471-87-0P
 661471-90-5P 872548-10-2P 872548-15-7P
 872548-21-5P 872548-23-7P 872548-25-9P
 872548-27-1P 872548-31-7P 872548-33-9P
 872548-38-4P 872548-39-5P 872548-41-9P
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 872548-51-1P 872548-53-3P

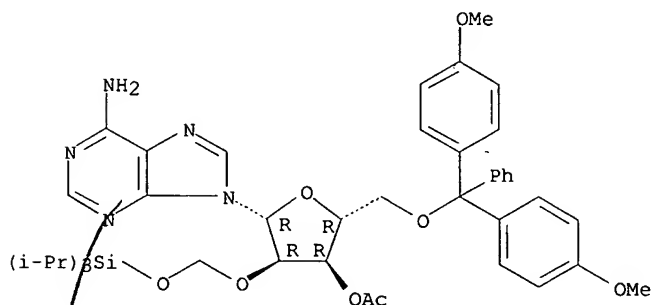
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(synthesis of 2'-O-[(triisopropylsilyl)oxy]methyl(=tom)-protected
 ribonucleoside phosphoramidites containing various nucleobase analogs)

RN 312709-86-7 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-
 methylethyl)silyl]oxy]methyl]-, 3'-acetate (9CI) (CA INDEX NAME)

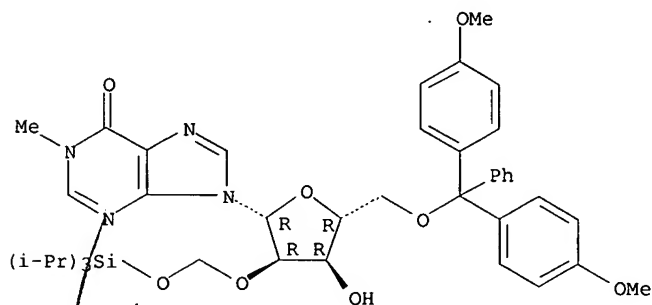
Absolute stereochemistry.



RN 661471-80-3 CAPLUS

CN Inosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1-methyl-2'-O-[[[tris(1-
 methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

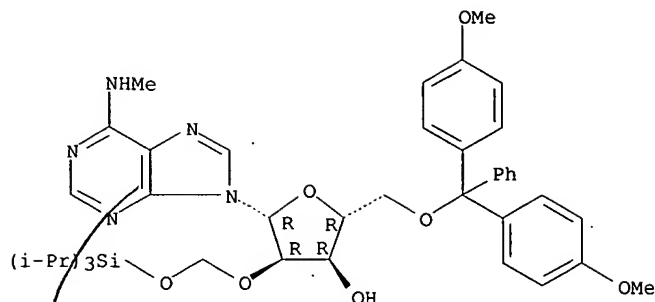
Absolute stereochemistry.



RN 661471-87-0 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-methyl-2'-O-[[[tris(1-
 methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

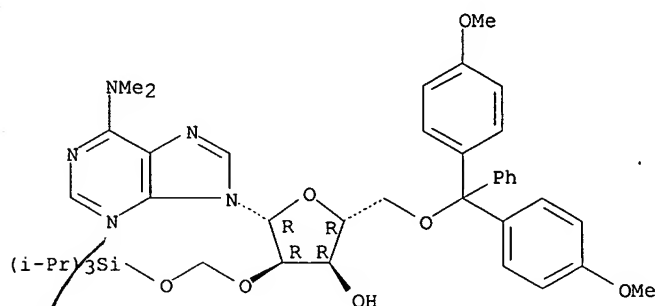
Absolute stereochemistry.



RN 661471-90-5 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N,N-dimethyl-2'-O-
[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

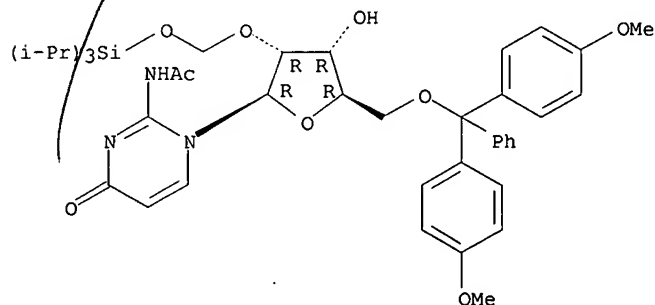
Absolute stereochemistry.



RN 872548-10-2 CAPLUS

CN Acetamide, N-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-β-D-ribofuranosyl]-1,4-dihydro-4-oxo-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

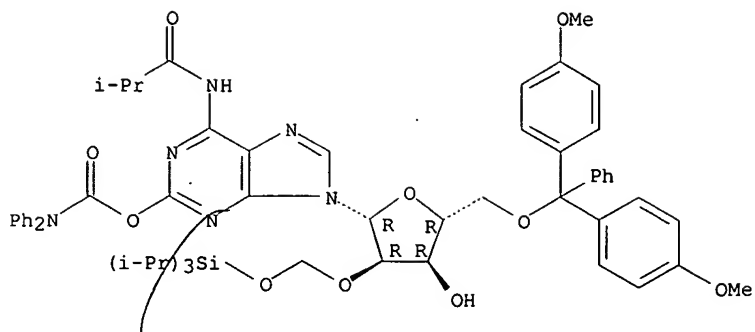


RN 872548-15-7 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2-O-
[[[bis(4-methoxyphenyl)phenylmethyl]oxy]-N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

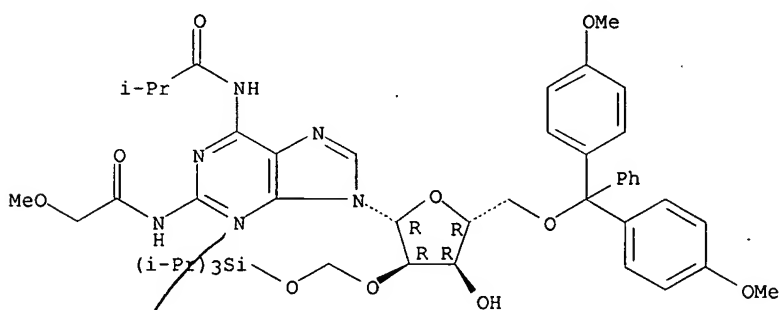
10/534,160



RN 872548-21-5 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2-
[(methoxyacetyl)amino]-N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-
methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

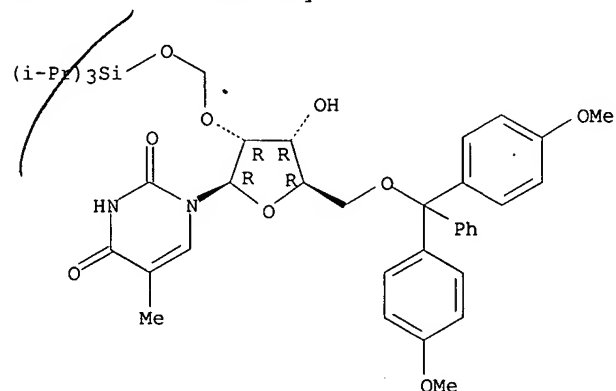
Absolute stereochemistry.



RN 872548-23-7 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-5-methyl-2'-O-[[[tris(1-
methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

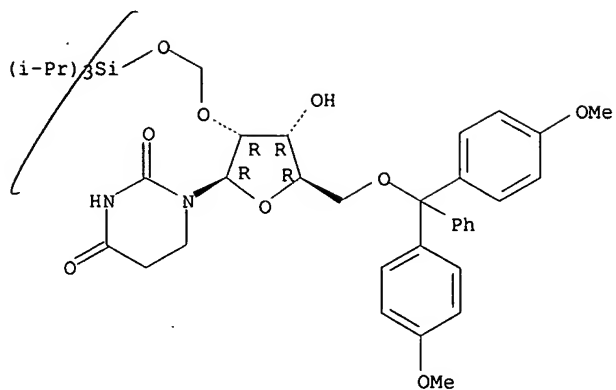


RN 872548-25-9 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-5,6-dihydro-2'-O-
[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

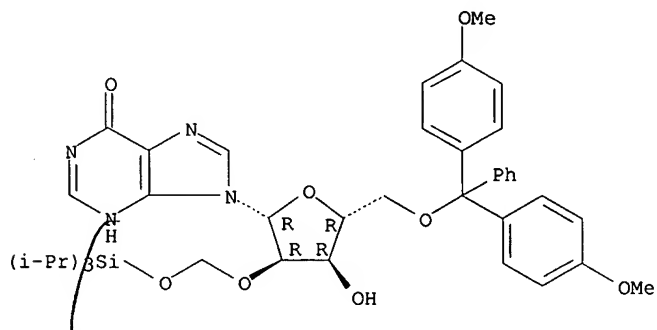
10/534,160



RN 872548-27-1 CAPLUS

CN Inosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

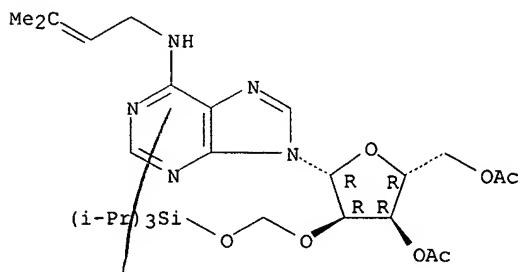
Absolute stereochemistry.



RN 872548-31-7 CAPLUS

CN Adenosine, N-(3-methyl-2-butenyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3',5'-diacetate (9CI) (CA INDEX NAME)

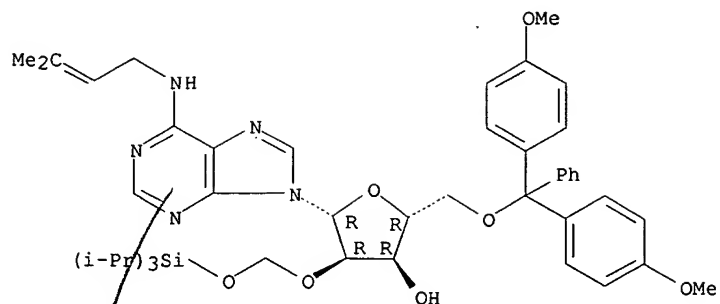
Absolute stereochemistry.



RN 872548-33-9 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(3-methyl-2-butenyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

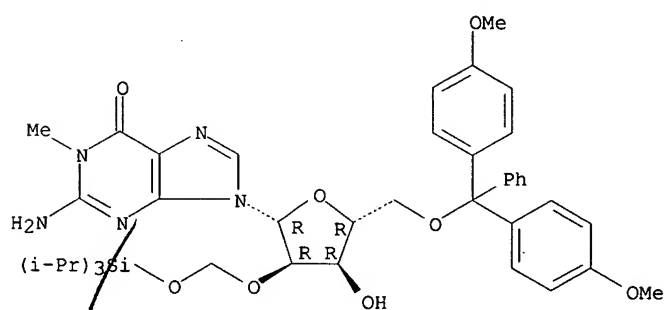
Absolute stereochemistry.



RN 872548-38-4 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

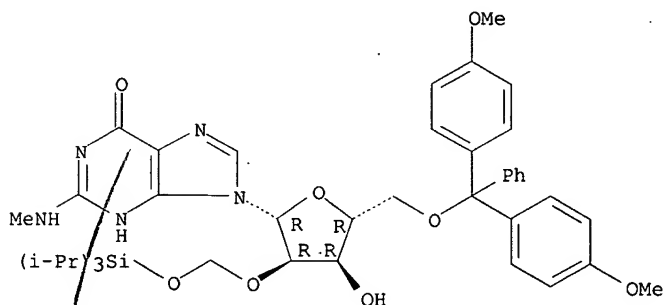
Absolute stereochemistry.



RN 872548-39-5 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

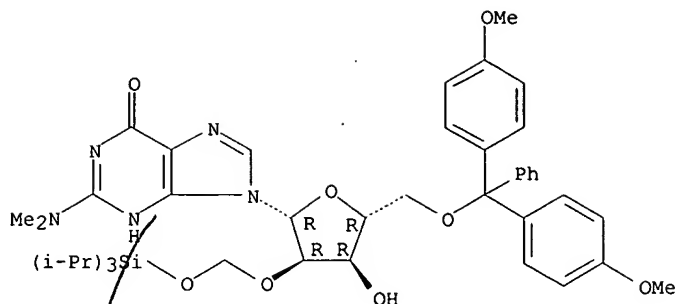
Absolute stereochemistry.



RN 872548-41-9 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N,N-dimethyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

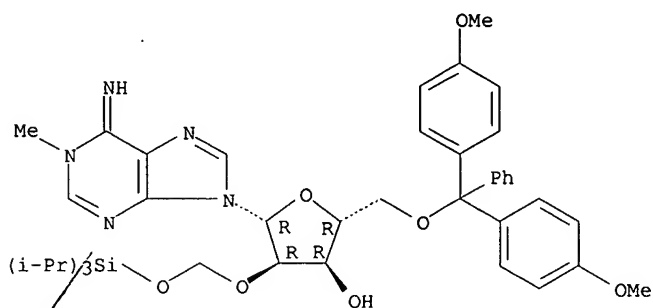
Absolute stereochemistry.



RN 872548-44-2 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

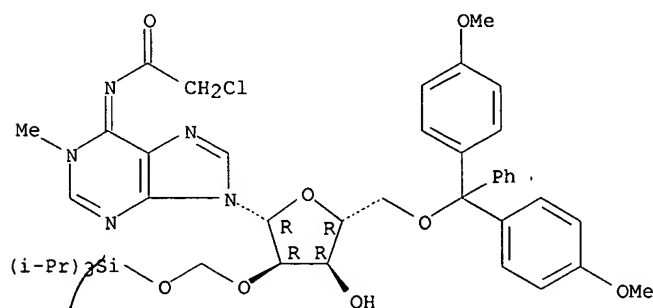


RN 872548-46-4 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(chloroacetyl)-1-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

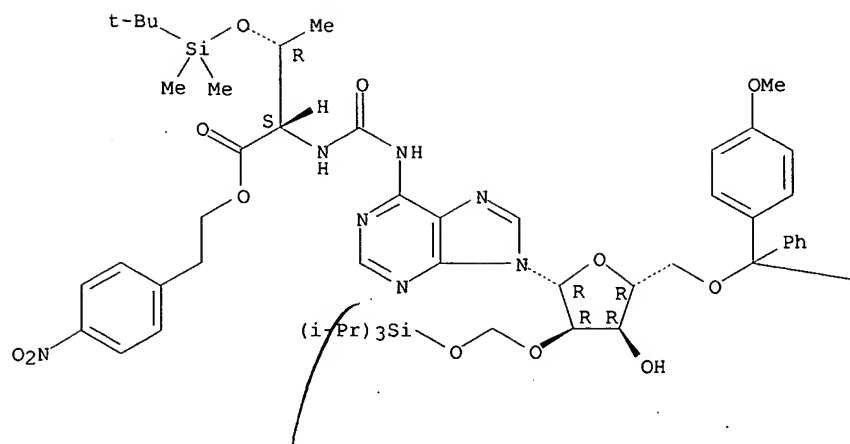


RN 872548-49-7 CAPLUS

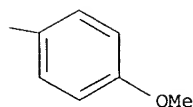
CN L-Threonine, N-[[[9-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-β-D-ribofuranosyl]-9H-purin-6-yl]amino]carbonyl]-O-[(1,1-dimethylethyl)dimethylsilyl]-, 2-(4-nitrophenyl)ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



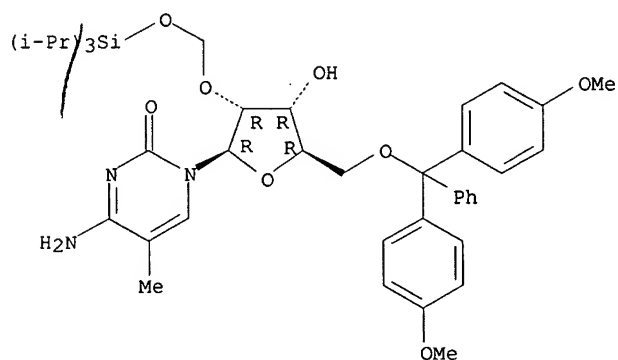
PAGE 1-B



RN 872548-51-1 CAPLUS

CN Cytidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-5-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

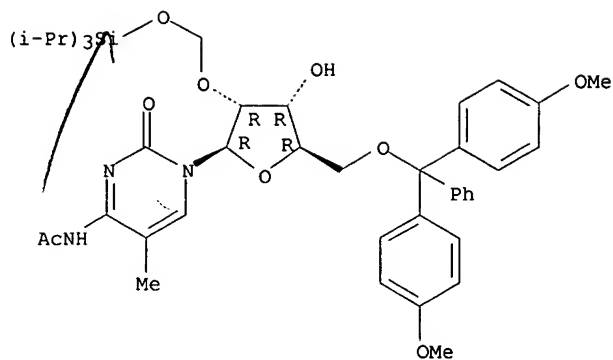


RN 872548-53-3 CAPLUS

CN Cytidine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-5-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

McIntosh



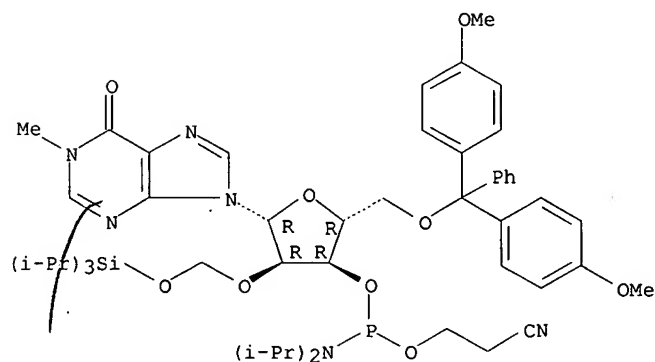
IT 661471-81-4P 661471-88-1P 661471-91-6P
 872548-54-4P 872548-55-5P 872548-56-6P
 872548-57-7P 872548-58-8P 872548-59-9P
 872548-60-2P 872548-61-3P 872548-62-4P
 872548-63-5P 872548-64-6P 872548-65-7P
 872548-66-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis of 2'-O-[(triisopropylsilyl)oxy]methyl(=tom)-protected
 ribonucleoside phosphoramidites containing various nucleobase analogs)

RN 661471-81-4 CAPLUS

CN Inosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

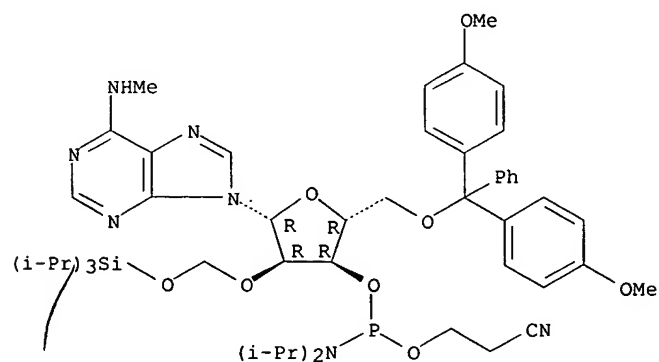
Absolute stereochemistry.



RN 661471-88-1 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



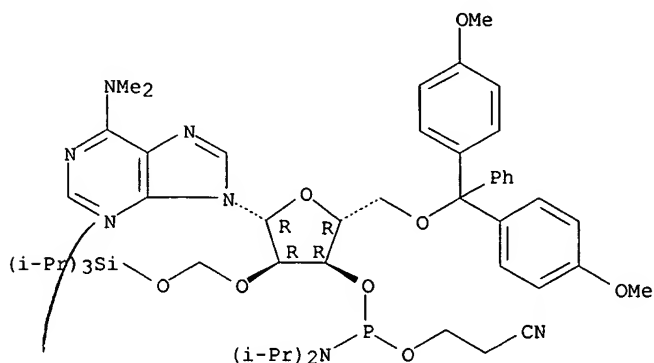
McIntosh

10/534,160

RN 661471-91-6 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N,N-dimethyl-2'-O-
[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl
bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

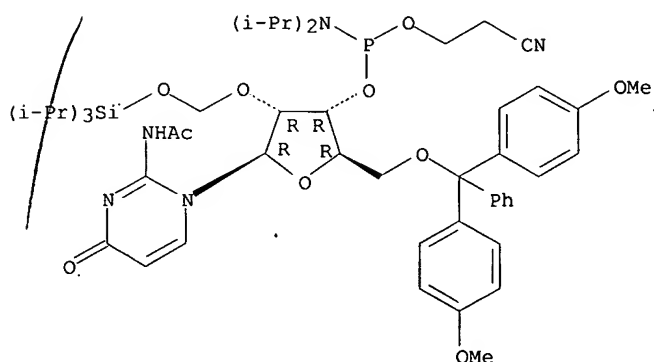
Absolute stereochemistry.



RN 872548-54-4 CAPLUS

CN Acetamide, N-[1-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]-2-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-β-D-ribofuranosyl]-1,4-dihydro-4-oxo-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

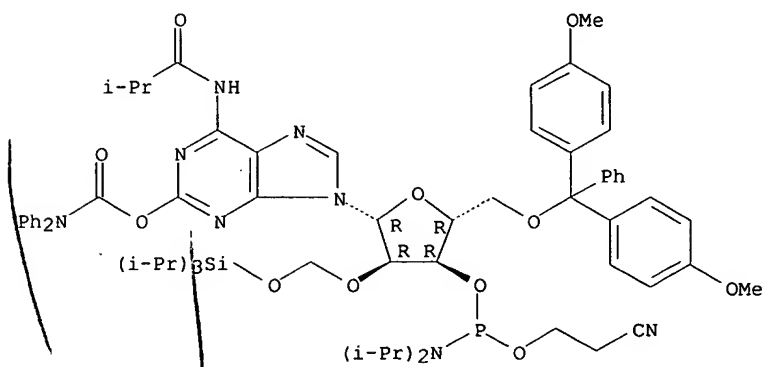
Absolute stereochemistry.



RN 872548-55-5 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2-
[[[diphenylamino]carbonyl]oxy]-N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



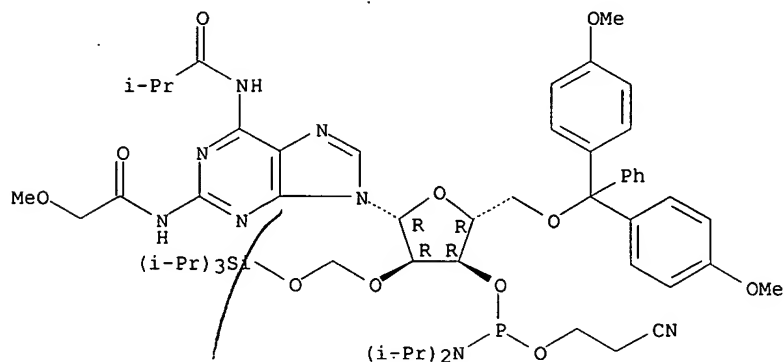
McIntosh

10/534,160

RN 872548-56-6 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2-
[(methoxyacetyl)amino]-N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-
methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-
methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

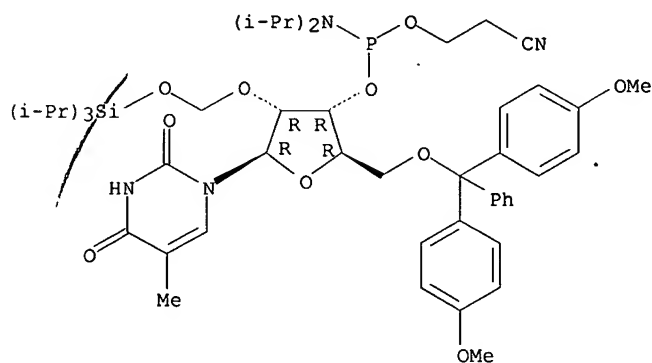
Absolute stereochemistry.



RN 872548-57-7 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-5-methyl-2'-O-[[[tris(1-
methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-
methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

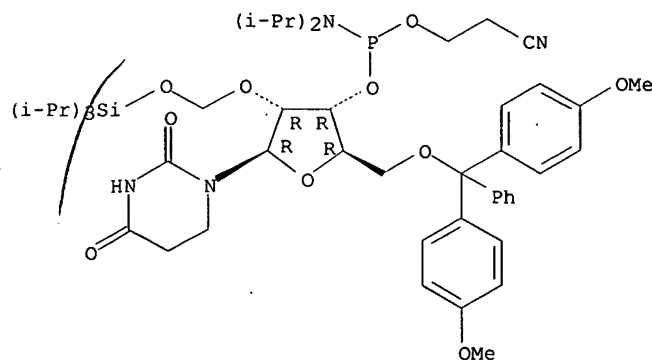
Absolute stereochemistry.



RN 872548-58-8 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-5,6-dihydro-2'-O-
[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl
bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



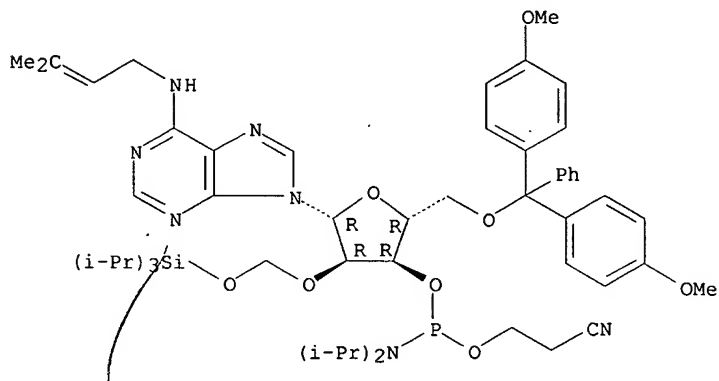
McIntosh

10/534,160

RN 872548-59-9 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(3-methyl-2-butenyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

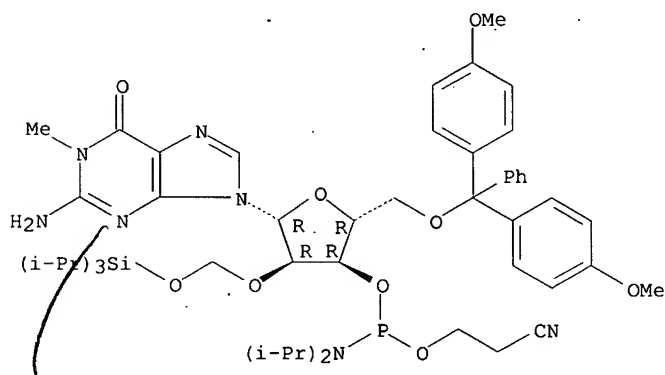
Absolute stereochemistry.



RN 872548-60-2 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

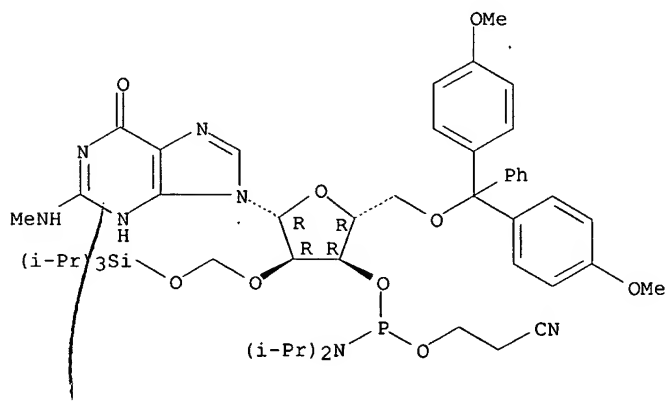
Absolute stereochemistry.



RN 872548-61-3 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



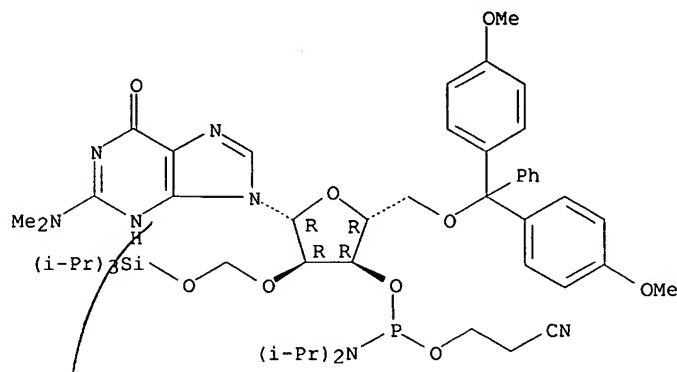
McIntosh

10/534,160

RN 872548-62-4 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N,N-dimethyl-2'-O-
[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl
bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

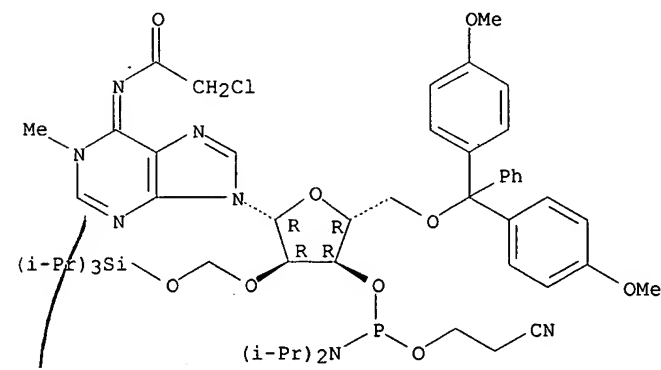


RN 872548-63-5 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(chloroacetyl)-1-
methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl
bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

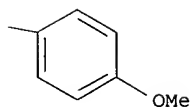
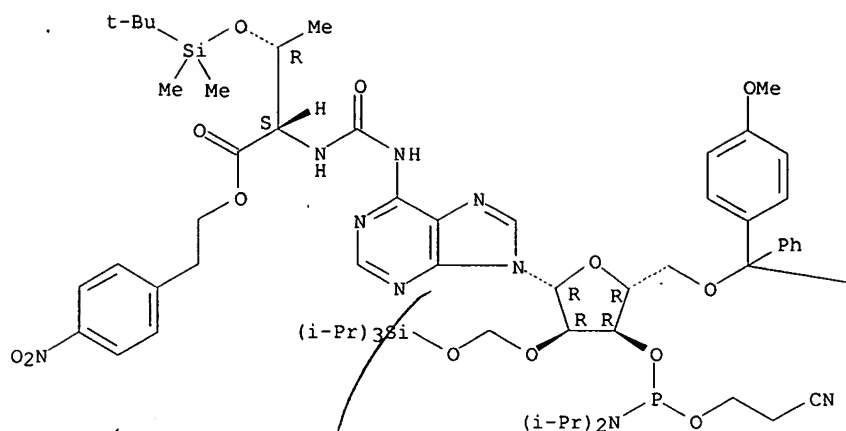
Double bond geometry unknown.



RN 872548-64-6 CAPLUS

CN L-Threonine, N-[[[9-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-
methylethyl)amino](2-cyanoethoxy)phosphino]-2-O-[[[tris(1-
methylethyl)silyl]oxy]methyl]-β-D-ribofuranosyl]-9H-purin-6-
yl]amino]carbonyl]-O-[(1,1-dimethylethyl)dimethylsilyl]-,
2-(4-nitrophenyl)ethyl ester (9CI) (CA INDEX NAME)

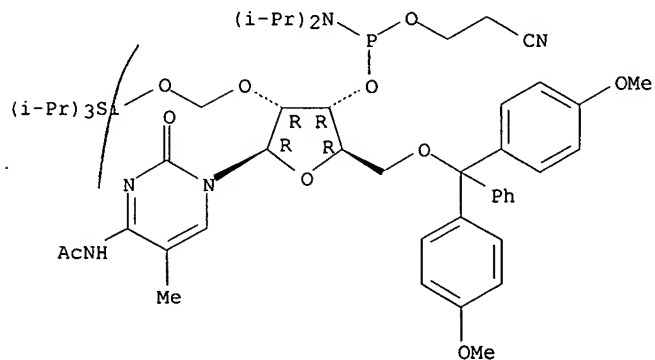
Absolute stereochemistry.



RN 872548-65-7 CAPLUS

CN Cytidine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-3'-O-[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]-5-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

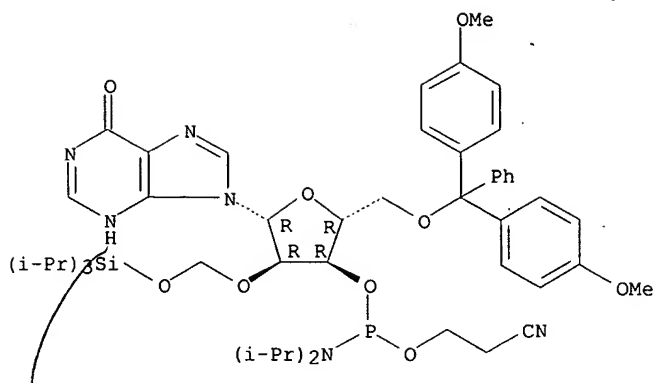


RN 872548-66-8 CAPLUS

INOSINE, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

McIntosh



RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:336513 CAPLUS
DN 143:55900

TI Accurate molecular weight measurements of nucleoside phosphoramidites: a
suitable matrix of mass spectrometry
AU Fujitake, Mihoyo; Harusawa, Shinya; Araki, Lisa; Yamaguchi, Maho; Lilley,
David M. J.; Zhao, Zheng-Yun; Kurihara, Takushi

CS Osaka University of Pharmaceutical Sciences, 4-20-1, Nasahara, Takatsuki,
Osaka, 569-1094, Japan

SO Tetrahedron (2005), 61(19), 4689-4699
CODEN: TETRAE; ISSN: 0040-4020

PB Elsevier B.V.
DT Journal
LA English

AB Nucleoside phosphoramidites (PAs) are the most widely used building blocks
in contemporary solid-phase synthesis of oligonucleotides. The accurate
mol. weight (MW) measurements of such mols., which contain acid-labile
moieties, may be easily determined by mass spectrometry using a matrix system,
triethanolamine (TEOA)-NaCl, on liquid secondary ion mass spectrometry
(LSIMS) equipped with a double-focusing mass spectrometer. The present
method measures rapidly and easily the accurate MWs of various PAs as
adduct ions [M+Na]⁺ with average mass error smaller than 0.4 ppm, allowing the
formulas of various PAs in place of elemental anal. Further, it was found
that intensities of mol.-related ions could be enhanced to the highest
degree by adjustment of the mole ratio of PA and NaCl fixing the amount of
TEOA on LSIMS, making the present method powerful tool for the MS
identification of PAs.

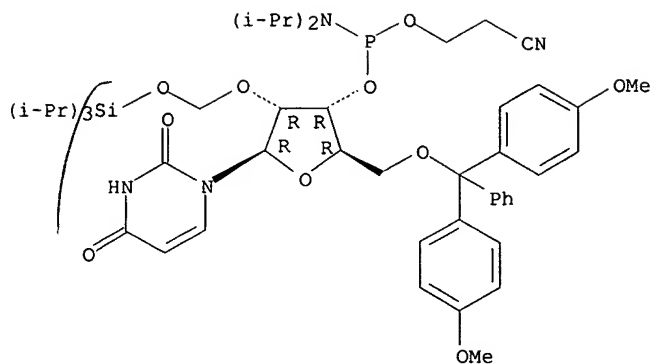
IT 220230-62-6 253586-12-8 253586-13-9
253586-14-0

RL: ANT (Analyte); ANST (Analytical study)
(accurate mol. weight measurements of nucleoside phosphoramidites by
matrix of mass spectrometry)

RN 220230-62-6 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-
methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-
methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

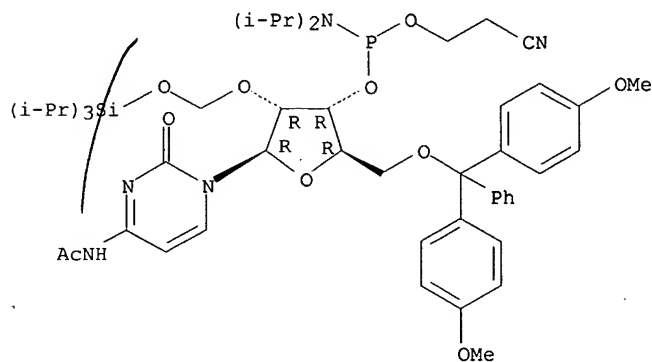
Absolute stereochemistry.



RN 253586-12-8 CAPLUS

CN Cytidine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

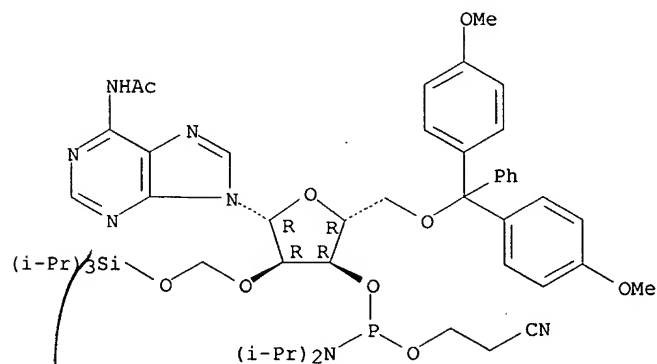
Absolute stereochemistry.



RN 253586-13-9 CAPLUS

CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

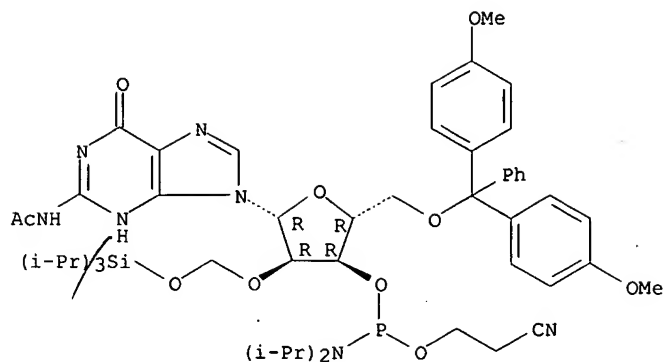
Absolute stereochemistry.



RN 253586-14-0 CAPLUS

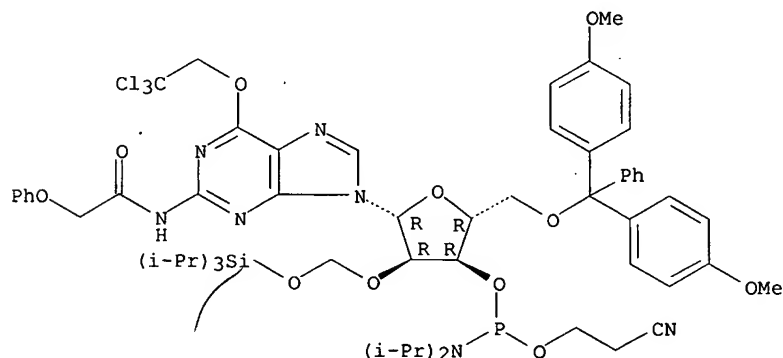
CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



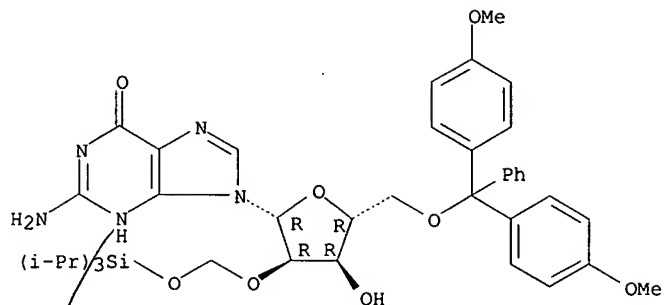
L4 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2004:650820 CAPLUS
 DN 141:327290
 TI Triggering of RNA secondary structures by a functionalized nucleobase
 AU Hoebartner, Claudia; Mittendorfer, Harald; Breuker, Kathrin; Micura, Ronald
 CS Institut fuer Organische Chemie, Leopold Franzens Universitaet, Innsbruck, 6020, Austria
 SO Angewandte Chemie, International Edition (2004), 43(30), 3922-3925
 CODEN: ACIEF5; ISSN: 1433-7851
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 OS CASREACT 141:327290
 AB Defined RNA secondary-structure rearrangements can be controlled by chemical functionalized nucleobases. The proof of principle for this previously unrecognized concept for manipulating secondary structures is based on a novel type of functionalized guanosine residue that provides an easily cleavable trichloroethyl (tce) moiety at the Watson-Crick base-pairing site.
 IT 767338-10-3P
 RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (triggering of RNA secondary structures by a functionalized nucleobase)
 RN 767338-10-3 CAPLUS
 CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(phenoxyacetyl)-6-O-(2,2,2-trichloroethyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 312709-92-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (triggering of RNA secondary structures by a functionalized nucleobase)
 RN 312709-92-5 CAPLUS
 CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 767338-06-7P 767338-07-8P 767338-08-9P

767338-09-0P

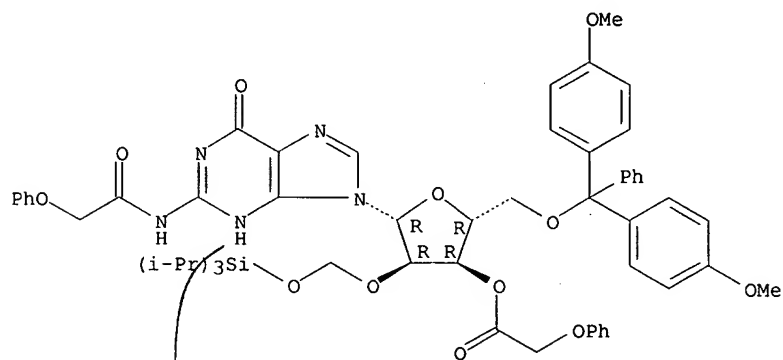
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(triggering of RNA secondary structures by a functionalized nucleobase)

RN 767338-06-7 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(phenoxyacetyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-(phenoxyacetate) (9CI) (CA INDEX NAME)

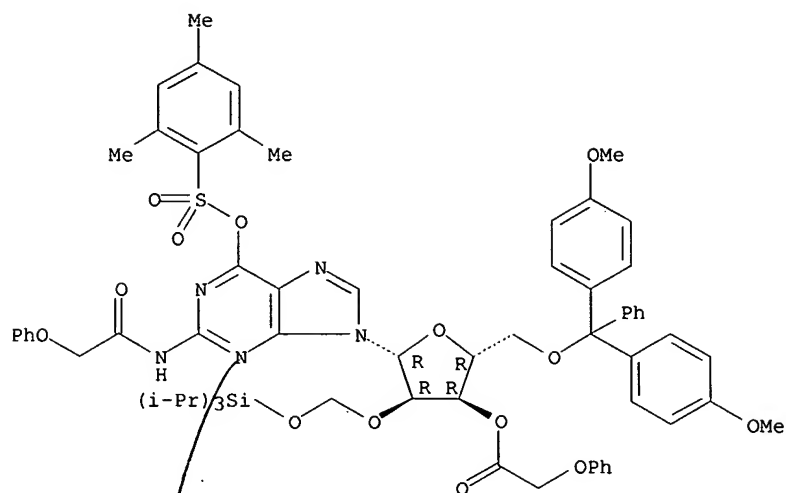
Absolute stereochemistry.



RN 767338-07-8 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(phenoxyacetyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-(phenoxyacetate) 6-(2,4,6-trimethylbenzenesulfonate) (9CI) (CA INDEX NAME)

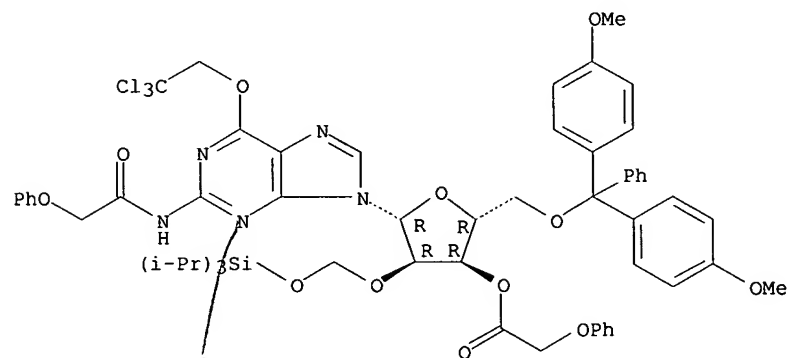
Absolute stereochemistry.



RN 767338-08-9 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(phenoxyacetyl)-6-O-(2,2,2-trichloroethyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-(phenoxyacetate) (9CI) (CA INDEX NAME)

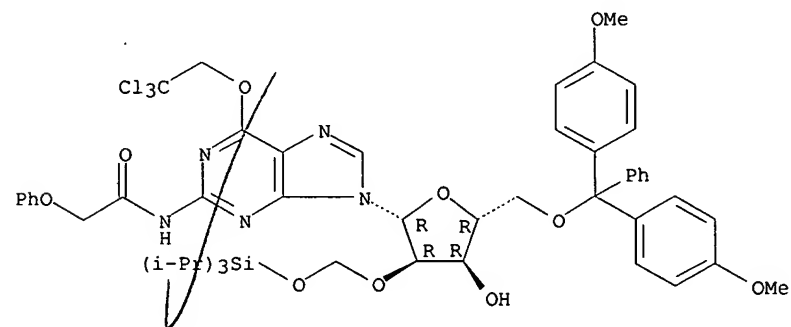
Absolute stereochemistry.



RN 767338-09-0 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(phenoxyacetyl)-6-O-(2,2,2-trichloroethyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



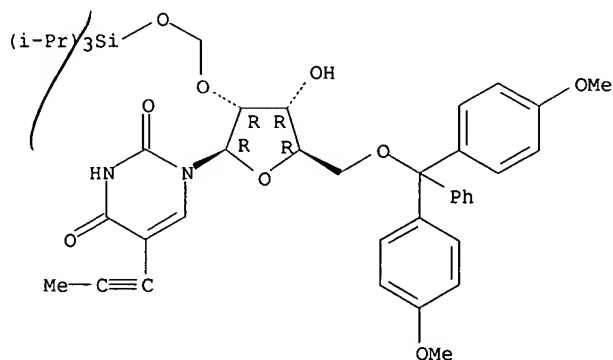
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

McIntosh

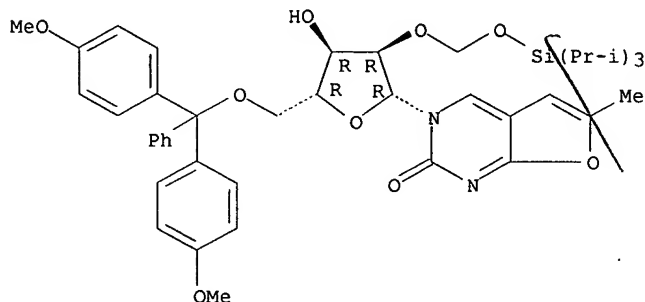
AN 2004:153546 CAPLUS
 DN 140:375409
 TI Pyrrolo-dC and pyrrolo-C: fluorescent analogs of cytidine and 2'-deoxycytidine for the study of oligonucleotides
 AU Berry, David A.; Jung, Kee-Yong; Wise, Dean S.; Sercel, Anthony D.; Pearson, William H.; Mackie, Hugh; Randolph, John B.; Somers, Robert L.
 CS Berry & Associates, Inc., Dexter, MI, 48130, USA
 SO Tetrahedron Letters (2004), 45(11), 2457-2461
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier Science B.V.
 DT Journal
 LA English
 OS CASREACT 140:375409
 AB Pyrrolo-dC (6-methyl-3-(2-deoxy-β-D-ribofuranosyl)-3H-pyrrolo[2,3-d]pyrimidin-2-one) and its cyanoethyl phosphoramidite were synthesized. The latter was incorporated into oligodeoxyribonucleotides by standard automated synthesis techniques, where pyrrolo-dC was found to serve as a fluorescent analog of deoxycytidine. The cyanoethyl-phosphoramidite of pyrrolo-C (6-methyl-3-(β-D-ribofuranosyl)-3H-pyrrolo[2,3-d]pyrimidin-2-one) was also synthesized and may find use for the site-specific incorporation of a fluorescent cytidine analog into oligodeoxyribonucleotides.
 IT 682335-05-3P 682335-06-4P 682335-07-5P
 682335-08-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of pyrrolo-C nucleoside phosphoramidite fluorescent analogs of cytidine and deoxycytidine in synthesis of oligonucleotides)
 RN 682335-05-3 CAPLUS
 CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-5-(1-propynyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 682335-06-4 CAPLUS
 CN Furo[2,3-d]pyrimidin-2(3H)-one, 3-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-β-D-ribofuranosyl]-6-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

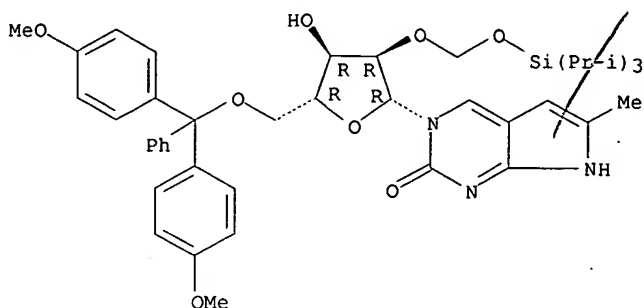


RN 682335-07-5 CAPLUS

McIntosh

CN 2H-Pyrrolo[2,3-d]pyrimidin-2-one, 3-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-2-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-β-D-ribofuranosyl]-1,3-dihydro-6-methyl- (9CI) (CA INDEX NAME)

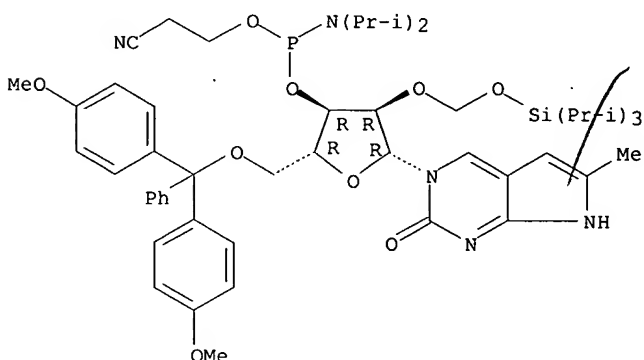
Absolute stereochemistry.



RN 682335-08-6 CAPLUS

CN 2H-Pyrrolo[2,3-d]pyrimidin-2-one, 3-[5-O-[bis(4-methoxyphenyl)phenylmethyl]-3-O-[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]-2-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-β-D-ribofuranosyl]-1,3-dihydro-6-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:69441 CAPLUS

DN 140:271142

TI Synthesis of selectively 15N-labeled 2'-O-[[[triisopropylsilyl]oxy]methyl] (=tom)-protected ribonucleoside phosphoramidites and their incorporation into a bistable 32mer RNA sequence

AU Wenter, Philipp; Pitsch, Stefan

CS Laboratory of Nucleic Acid Chemistry, Ecole Polytechnique Federale de Lausanne (EPFL), EPFL-BCH, Lausanne, CH-1015, Switz.

SO Helvetica Chimica Acta (2003), 86(12), 3955-3974

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

OS CASREACT 140:271142

AB We present optimized reaction conditions for the conversion of 2'-O-[[[triisopropylsilyl]oxy]methyl] (tom) protected uridine and adenosine nucleosides into the corresponding protected (3-15N)-labeled uridine and cytidine and (1-15N)-labeled adenosine and guanosine nucleosides. On a DNA synthesizer, the resulting 15N-labeled 2'-O-tom-protected phosphoramidite building blocks were efficiently incorporated into five selected positions of a hairpin bi-stable 32mer RNA sequence. By 2D-HSQC and HNN-COSY expts. in H2O/D2O 9:1, the 15N-signals of all base-paired 15N-labeled nucleotides could be identified and attributed to one of the two coexisting structures of 32mer RNA sequence.

10/534,160

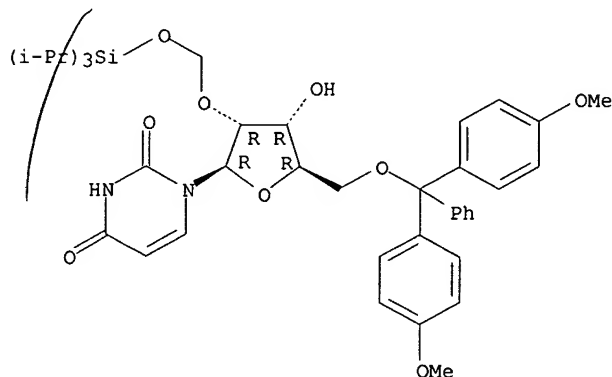
IT 220230-58-0 253586-22-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of selectively ¹⁵N-labeled 2'-O-
[[triisopropylsilyl]oxy]methyl}(tom)-protected ribonucleoside
phosphoramidites and their incorporation into a bistable 32mer RNA
sequence)

RN 220230-58-0 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

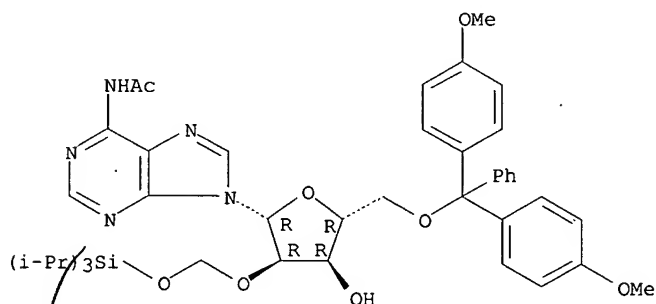
Absolute stereochemistry. Rotation (+).



RN 253586-22-0 CAPLUS

CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 220230-59-1P 672298-84-9P 672298-85-0P
672298-86-1P 672298-87-2P 672298-88-3P
672298-89-4P 672298-90-7P 672298-91-8P
672298-92-9P 672298-93-0P 672298-94-1P
672298-95-2P 672298-96-3P 672298-97-4P
672298-98-5P 672298-99-6P 672299-00-2P
672299-01-3P 672299-02-4P

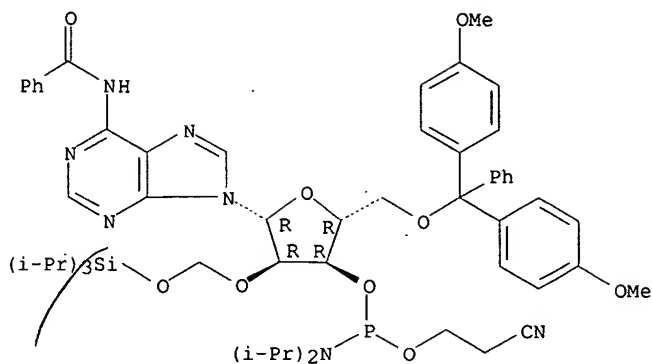
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(synthesis of selectively ¹⁵N-labeled 2'-O-
[[triisopropylsilyl]oxy]methyl}(tom)-protected ribonucleoside
phosphoramidites and their incorporation into a bistable 32mer RNA
sequence)

RN 220230-59-1 CAPLUS

CN Adenosine, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-
[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl
bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

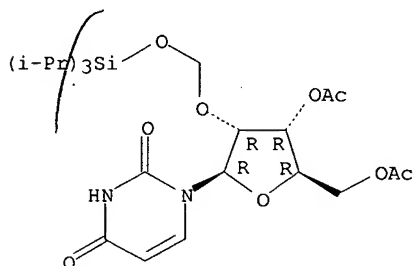
Absolute stereochemistry.

10/534,160



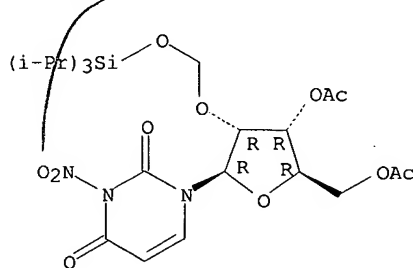
RN 672298-84-9 CAPLUS
CN Uridine, 2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3',5'-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 672298-85-0 CAPLUS
CN Uridine, 3-nitro-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3',5'-diacetate (9CI) (CA INDEX NAME)

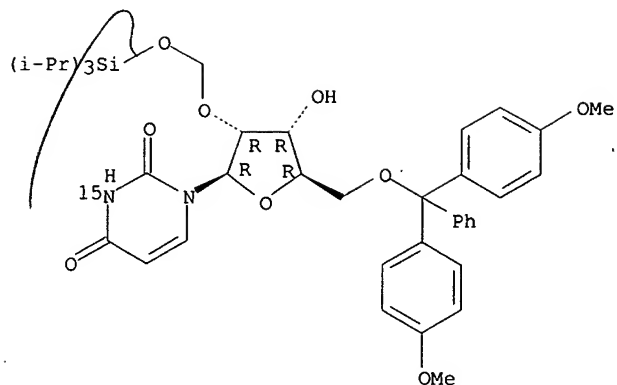
Absolute stereochemistry.



RN 672298-86-1 CAPLUS
CN Uridine-3-15N, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

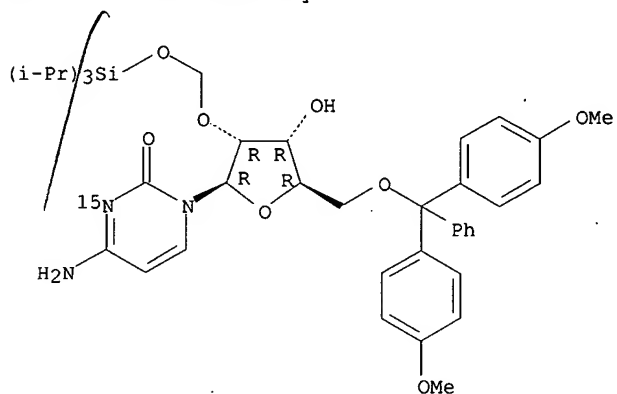
10/534,160



RN 672298-87-2 CAPLUS

CN Cytidine-3-15N, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

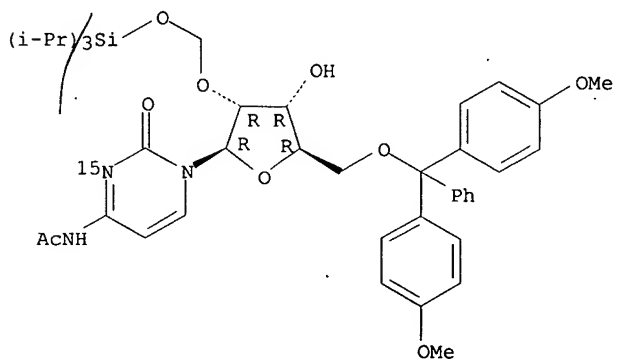
Absolute stereochemistry.



RN 672298-88-3 CAPLUS

CN Cytidine-3-15N, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

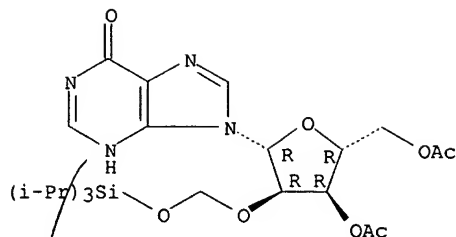
Absolute stereochemistry.



RN 672298-89-4 CAPLUS

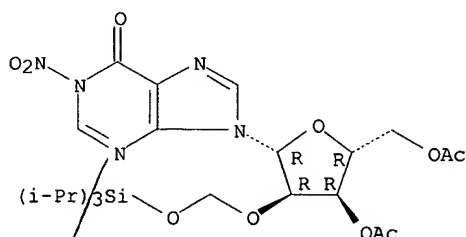
CN Inosine, 2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3',5'-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



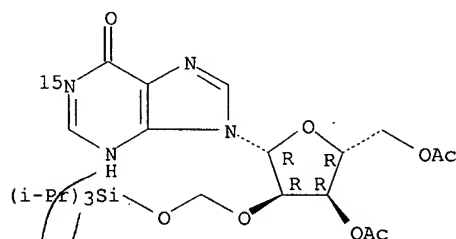
RN 672298-90-7 CAPLUS
 CN Inosine, 1-nitro-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-,
 3',5'-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



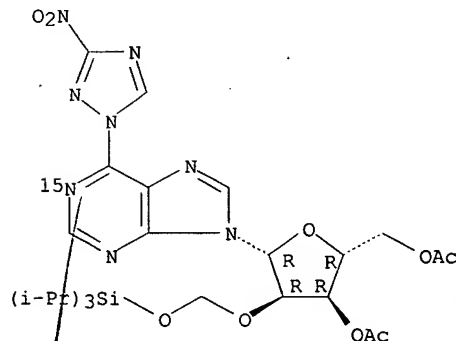
RN 672298-91-8 CAPLUS
 CN Inosine-1-15N, 2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-,
 3',5'-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



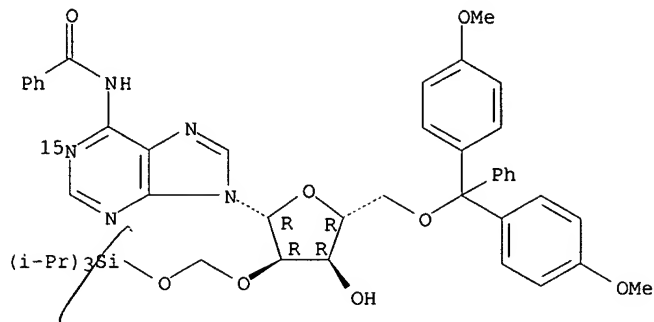
RN 672298-92-9 CAPLUS
 CN 9H-Purine-1-15N, 9-[3,5-di-O-acetyl-2-O-[[[tris(1-
 methylethyl)silyl]oxy]methyl]-β-D-ribofuranosyl]-6-(3-nitro-1H-1,2,4-
 triazol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 672298-93-0 CAPLUS
 CN Adenosine-1-15N, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-
 [[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

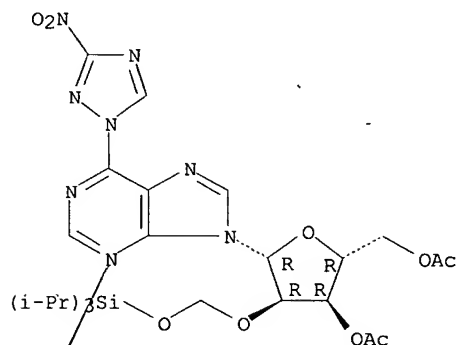
Absolute stereochemistry.



RN 672298-94-1 CAPLUS

9H-Purine, 9-[3,5-di-O-acetyl-2-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-
β-D-ribofuranosyl]-6-(3-nitro-1H-1,2,4-triazol-1-yl)-(9CI) (CA
INDEX NAME)

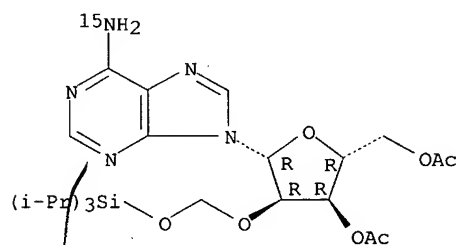
Absolute stereochemistry.



RN / 672298-95-2 CAPLUS

CN / Adenosine-N-15N, 2'-O-[[[tris(1-methylethyl)silyl]oxy)methyl]-, 3',5'-diacetate (9CI) (CA INDEX NAME)

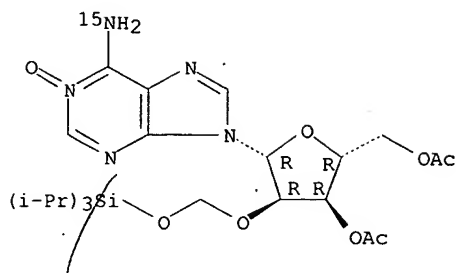
Absolute stereochemistry.



RN 672298-96-3 CAPLUS

CN Adenosine-N-15N, 2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3',5'-diacetate, 1-oxide (9CI) (CA INDEX NAME)

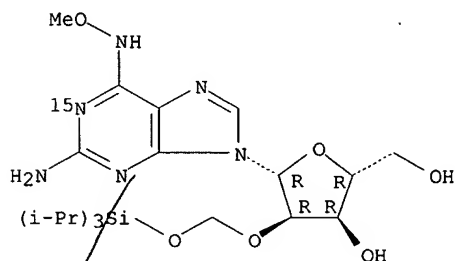
Absolute stereochemistry.



RN 672298-97-4 CAPLUS

CN Guanosine-1-15N, 2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, O-methyloxime (9CI) (CA INDEX NAME)

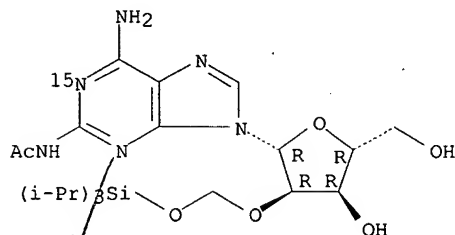
Absolute stereochemistry.



RN 672298-98-5 CAPLUS

CN Adenosine-1-15N, 2-(acetylamino)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

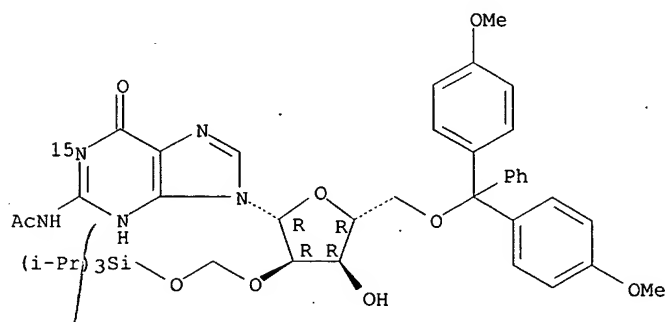
Absolute stereochemistry.



RN 672298-99-6 CAPLUS

CN Guanosine-1-15N, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



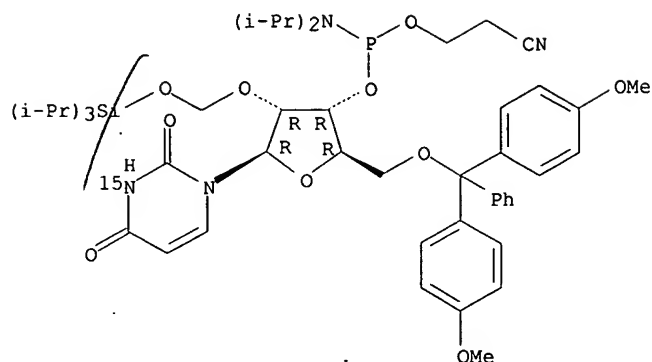
RN 672299-00-2 CAPLUS

CN Uridine-3-15N, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

McIntosh

10/534,160

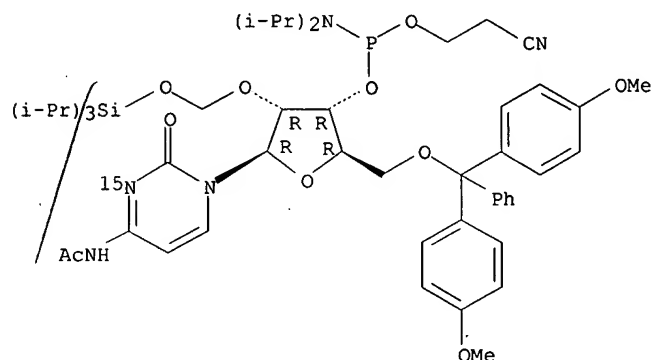
Absolute stereochemistry.



RN 672299-01-3 CAPLUS

CN Cytidine-3-15N, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-
[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl
bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

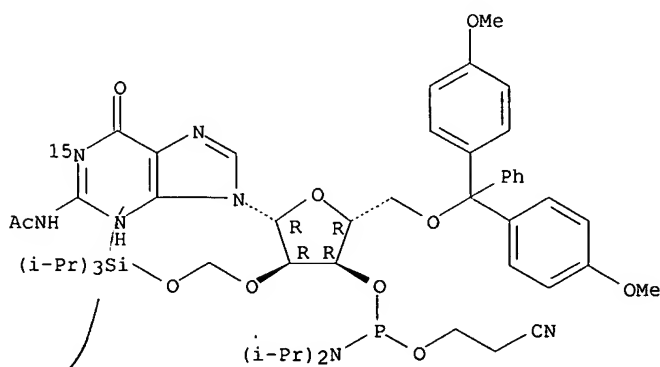
Absolute stereochemistry.



RN 672299-02-4 CAPLUS

CN Guanosine-1-15N, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-
[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl
bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

McIntosh

10/534,160

AN 2004:42356 CAPLUS

DN 140:235991

TI Hydrolysis of 2',3'-O-methyleneadenos-5'-yl Bis(2',5'-di-O-methylurid-3'-yl) Phosphate, a Sugar O-Alkylated Trinucleoside 3',3',5'-Monophosphate: Implications for the Mechanism of Large Ribozymes

AU Loennberg, Tuomas; Mikkola, Satu

CS Department of Chemistry, University of Turku, Turku, FIN-20014, Finland

SO Journal of Organic Chemistry (2004), 69(3), 802-810

CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

OS CASREACT 140:235991

AB Hydrolytic reactions of 2',3'-O-methyleneadenos-5'-yl bis(2',5'-di-O-methylurid-3'-yl) phosphate (I), a sugar O-alkylated trinucleoside 3',3',5'-monophosphate, have been followed by RP HPLC over a wide pH range. Under neutral and mildly acidic conditions, the only reaction observed was a pH-independent cleavage of the O-C5' bond of the 5'-linked nucleoside. Under more alkaline conditions nucleophilic attack by hydroxide ion starts to compete. The reaction is first order in [OH⁻] and becomes predominant at pH 10. Each of the 3'-linked nucleosides is displaced 2.9 times as readily as the 5'-linked one. To determine the β_{lg} value for the hydroxide ion catalyzed hydrolysis of I, two diesters having 2',3'-O-methyleneadenosine (II) and 2',5'-di-O-methyluridine (III) as leaving groups were hydrolyzed under alkaline conditions. Since the β_{lg} value for this reaction is known, ΔpK_a between III and II could be calculated. The β_{lg} for the hydrolysis of I was estimated to be -0.5 with use of this information. The mechanisms of the partial reactions and the role of leaving group properties in ribozyme reactions of large ribozymes are discussed.

IT 861429-79-0

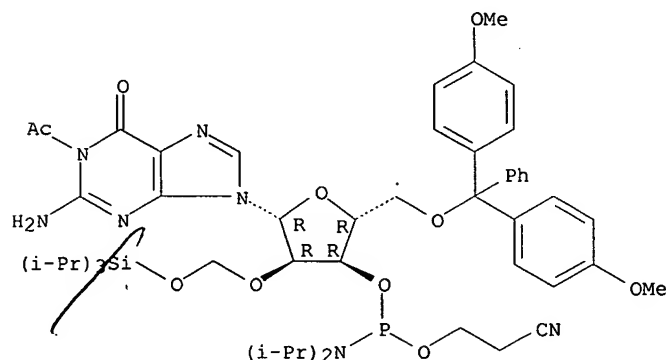
RL: RCT (Reactant); RACT (Reactant or reagent)

(kinetics of hydrolysis and reaction mechanism anal. of 2',3'-O-methyleneadenos-5'-yl bis(2',5'-di-O-methylurid-3'-yl) phosphate, and glycoside O-alkylated trinucleoside 3',3',5'-monophosphate)

RN 861429-79-0 CAPLUS

CN Guanosine, 1-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:714415 CAPLUS

DN 140:402273

TI The Effect of Universal Fluorinated Nucleobases on the Catalytic Activity of Ribozymes

AU Kloepffer, A. E.; Engels, J. W.

CS Institute for Organic Chemistry and Chemical Biology, Johann-Wolfgang-Goethe University, Frankfurt am Main, D-60439, Germany

SO Nucleosides, Nucleotides & Nucleic Acids (2003), 22(5-8), 1347-1350

CODEN: NNNAFY; ISSN: 1525-7770

PB Marcel Dekker, Inc.

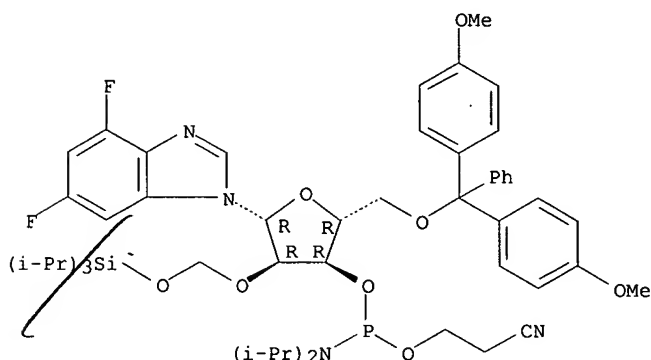
McIntosh

DT Journal
LA English
OS CASREACT 140:402273
AB Four fluoro-modified universal nucleobases have been synthesized. The universal nucleobases 1 and 2, containing a 2,4-difluorobenzene as nucleobase and a 4,6-difluorobenzimidazole, resp., were chemical incorporated into a selected hammerhead ribozyme sequence which has already been retrovirally expressed as an anti-HIV ribozyme to investigate their effect on the catalytic activity of the ribozymes. The substitution of the natural nucleosides with either 1 or 2 results only in a small decrease of the catalytic activity. The K_m value for the monosubstituted ribozyme with a 2,4-difluorobenzene is 309 nM⁻¹, the corresponding k_{cat} is 2.91 + 10⁻³ min⁻¹. A di-substituted hammerhead ribozyme carrying one of each modification has also been synthesized. For further stabilization of the ribozyme/substrate complex, 2'-(β -aminoethoxy)-modified fluorinated nucleosides were developed.

IT 689221-93-0
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effect of incorporation into hammerhead ribozyme; effect of universal fluorinated nucleobases on the catalytic activity of ribozymes)

RN 689221-93-0 CAPLUS
CN 1H-Benzimidazole, 1-[5-O-(bis(4-methoxyphenyl)phenylmethyl)-3-O-[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]-2-O-[[[tris(1-methylethyl)silyl]oxy)methyl]- β -D-ribofuranosyl]-4,6-difluoro- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

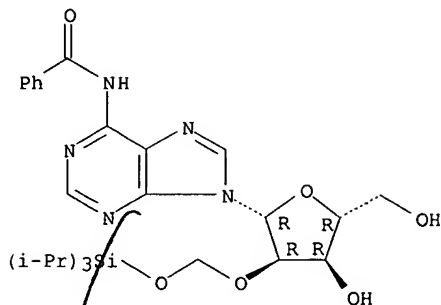


RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:714332 CAPLUS
DN 140:217916
TI Synthesis of 2'-O-Substituted Ribonucleosides
AU Serebryany, V.; Beigelman, L.
CS Ribozyme Pharmaceuticals Inc., Boulder, CO, 80301, USA
SO Nucleosides, Nucleotides & Nucleic Acids (2003), 22(5-8), 1007-1009
CODEN: NNAFY; ISSN: 1525-7770
PB Marcel Dekker, Inc.
DT Journal
LA English
OS CASREACT 140:217916
AB An efficient synthesis of 2'-O-substituted ribonucleosides, including 2'-O-TBDMS and 2'-O-TOM protected as well as 2'-O-Me and 2'-O-allyl derivs. is presented. Di-t-butylsilylene group was employed for simultaneous protection of 3'- and 5'-hydroxyl functions of nucleoside on the first step. Subsequent silylation or alkylation of free 2'-OH followed by introduction of suitable protection on the base moiety and removal of cyclic silyl protection gave target compds. in a high yield.
IT 468757-39-3P 468757-40-6P 663949-94-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of 2'-O-substituted ribonucleosides using di-t-butylsilylene protection at the 5' and 3'-positions)
RN 468757-39-3 CAPLUS
CN Adenosine, N-benzoyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI)
(CA INDEX NAME)

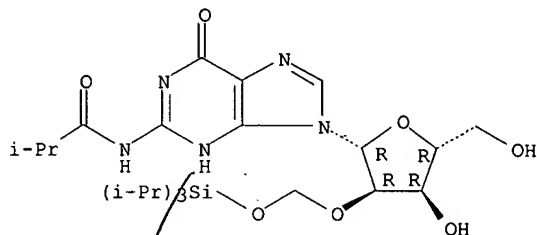
10/534,160

Absolute stereochemistry.



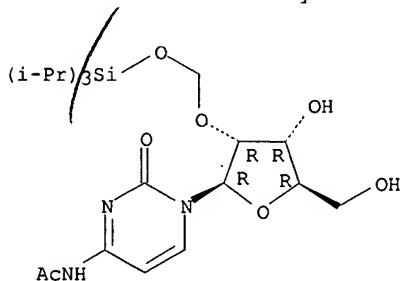
RN 468757-40-6 CAPLUS
CN Guanosine, N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 663949-94-8 CAPLUS
CN Cytidine, N-acetyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:620421 CAPLUS
DN 140:199568
TI The synthesis of 2'-O-[[[tri-isopropylsilyl]oxy]methyl (TOM)
phosphoramidites of methylated ribonucleosides (m1G, m2G, m22G, m1I, m3U,
m4C, m6A, m62A) for use in automated RNA solid-phase synthesis
AU Hoebartner, Claudia; Kreutz, Christoph; Flecker, Elke; Ottenschlaeger,
Elke; Pils, Werner; Grubmayr, Karl; Micura, Ronald
CS Institute of Organic Chemistry, University of Innsbruck, Austria
SO Monatshefte fuer Chemie (2003), 134(6), 851-873
CODEN: MOCMB7; ISSN: 0026-9247
PB Springer-Verlag Wien
DT Journal
LA English
OS CASREACT 140:199568
AB The straightforward synthesis of eight methylated ribonucleoside
phosphoramidites is described. These building blocks allow for

McIntosh

incorporation of the naturally occurring nucleosides 1-methylguanosine (m1G), N2-methylguanosine (m2G), N2,N2-dimethylguanosine (m22G), 1-methylinosine (m1I), 3-methyluridine (m3U), N4-methylcytidine (m4C), N6-methyladenosine (m6A), and N6,N6-dimethyladenosine (m62A) into oligoribonucleotides by automated RNA solid-phase synthesis. In all cases, the ribose 2'-hydroxyl group of the building blocks is masked by the recently introduced [(tri-isopropylsilyl)oxy]methyl (TOM) group.

IT 661471-73-4P 661471-75-6P 661471-78-9P
661471-80-3P 661471-82-5P 661471-84-7P
661471-85-8P 661471-87-0P 661471-90-5P

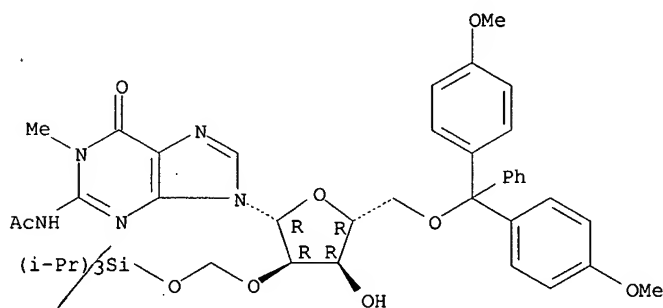
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of 2'-O-[(triisopropylsilyl)oxy]methyl phosphoramidites of methylated ribonucleosides as synthons for use in automated RNA solid phase synthesis)

RN 661471-73-4 CAPLUS

CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

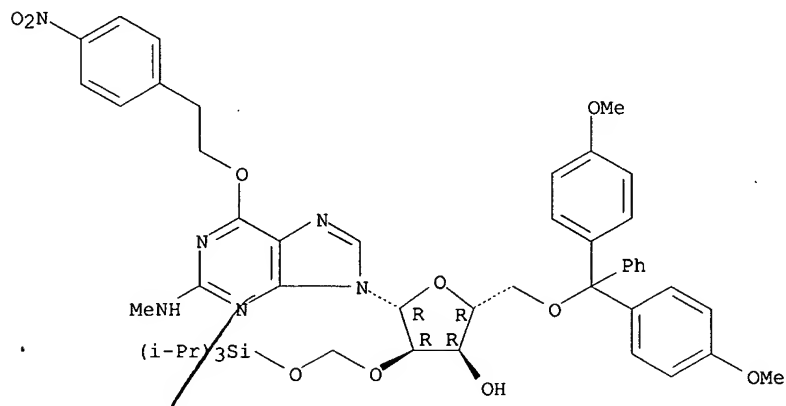
Absolute stereochemistry.



RN 661471-75-6 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-methyl-6-O-[2-(4-nitrophenyl)ethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

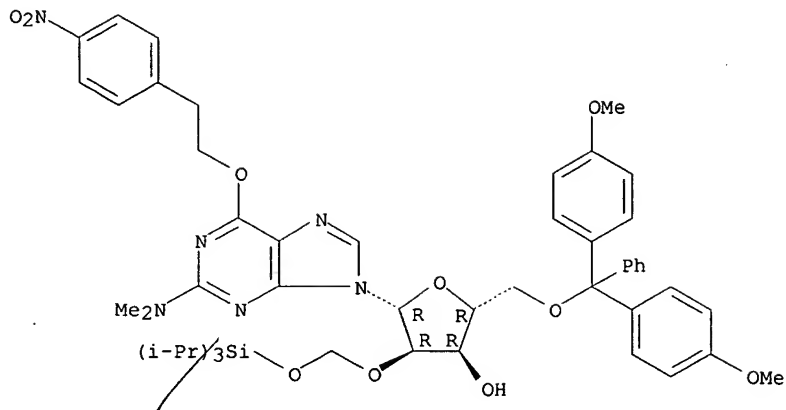


RN 661471-78-9 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N,N-dimethyl-6-O-[2-(4-nitrophenyl)ethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

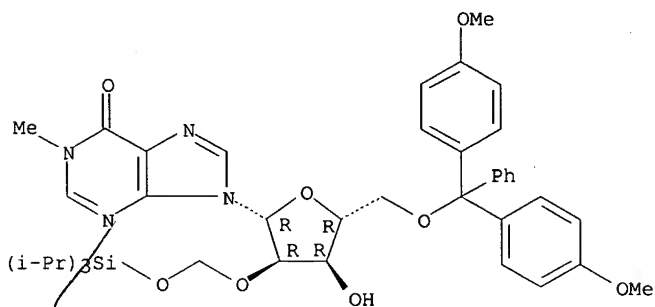
10/534,160



RN 661471-80-3 CAPLUS

CN Inosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

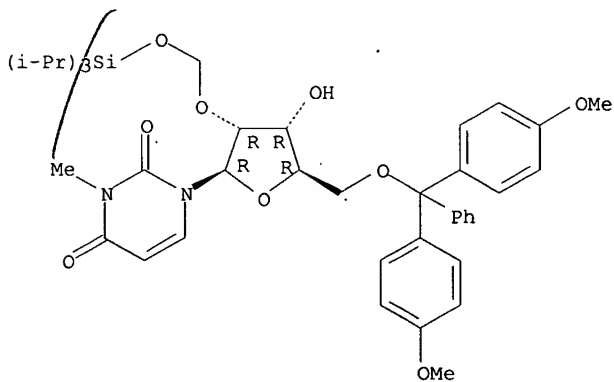
Absolute stereochemistry.



RN 661471-82-5 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-3-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

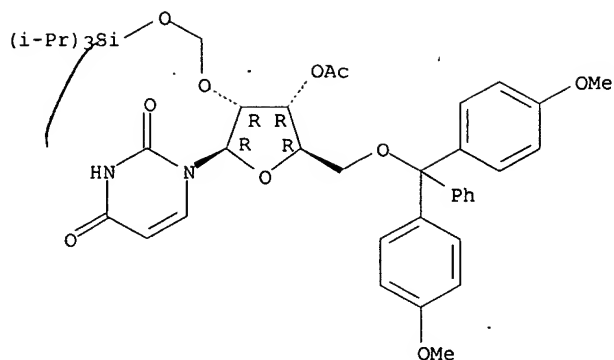


RN 661471-84-7 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

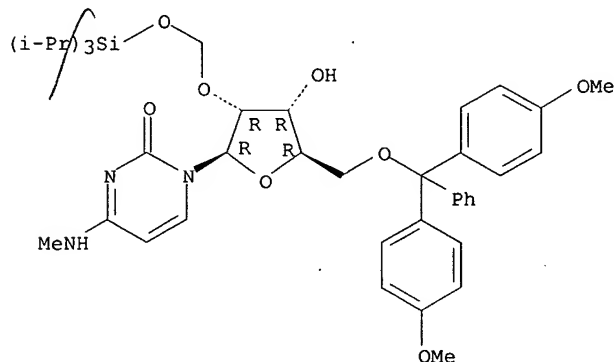
10/534,160



RN 661471-85-8 CAPLUS

CN Cytidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

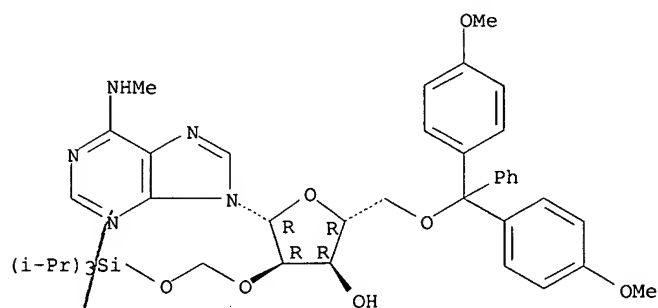
Absolute stereochemistry.



RN 661471-87-0 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

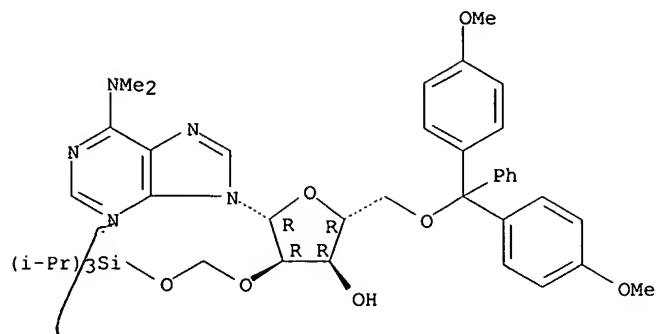
Absolute stereochemistry.



RN 661471-90-5 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N,N-dimethyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 661471-74-5P 661471-76-7P 661471-79-0P
 661471-81-4P 661471-83-6P 661471-86-9P
 661471-88-1P 661471-91-6P

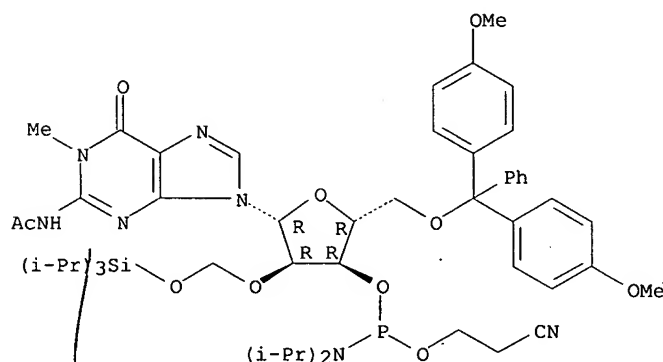
RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of 2'-O-[(triisopropylsilyl)oxy]methyl phosphoramidites of methylated ribonucleosides as synthons for use in automated RNA solid phase synthesis)

RN 661471-74-5 CAPLUS

CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

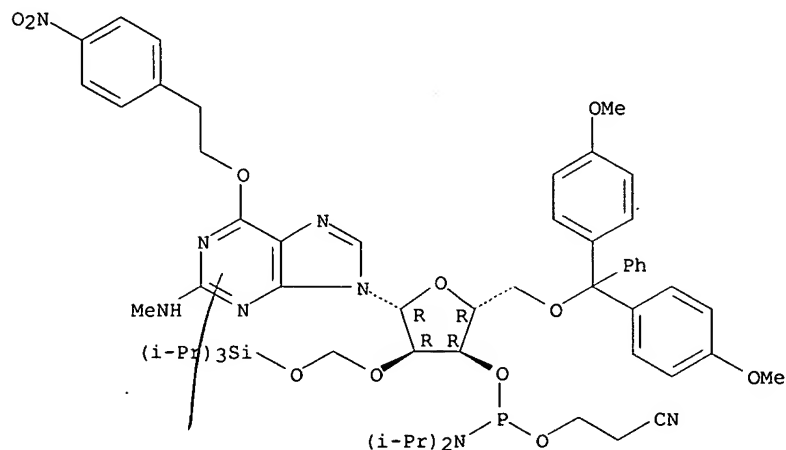
Absolute stereochemistry.



RN 661471-76-7 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-methyl-6-O-[2-(4-nitrophenyl)ethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

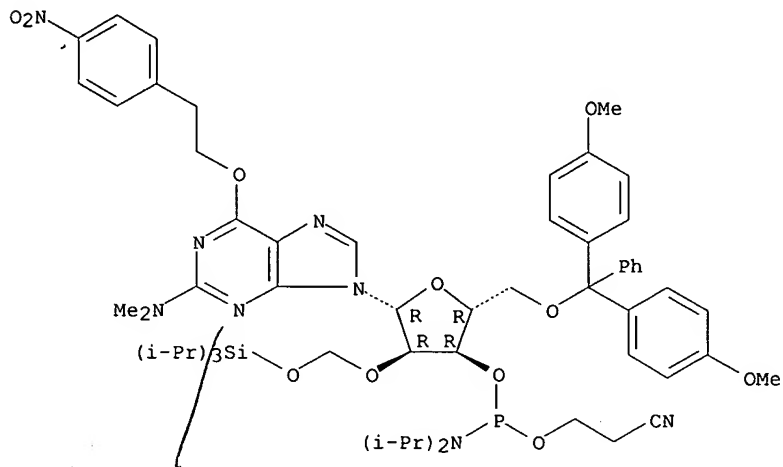


10/534,160

RN 661471-79-0 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N,N-dimethyl-6-O-[2-(4-nitrophenyl)ethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

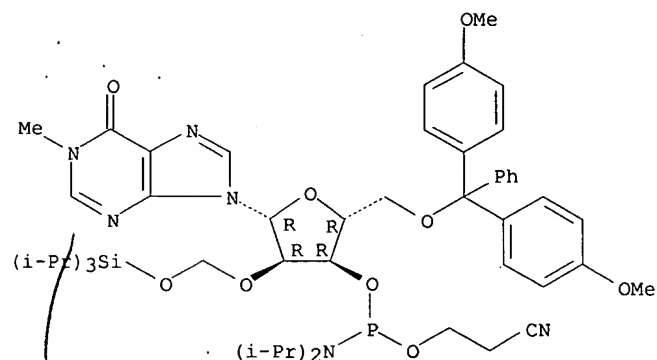
Absolute stereochemistry.



RN 661471-81-4 CAPLUS

CN Inosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

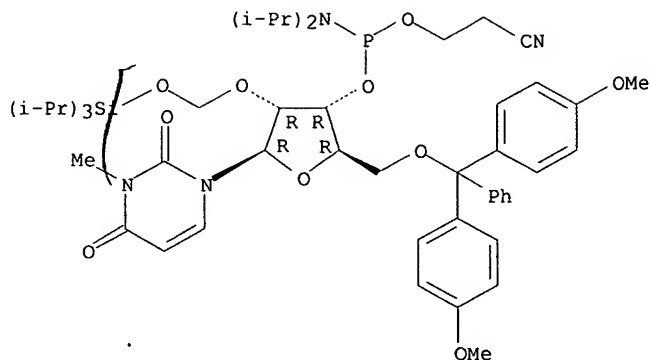
Absolute stereochemistry.



RN 661471-83-6 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-3-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

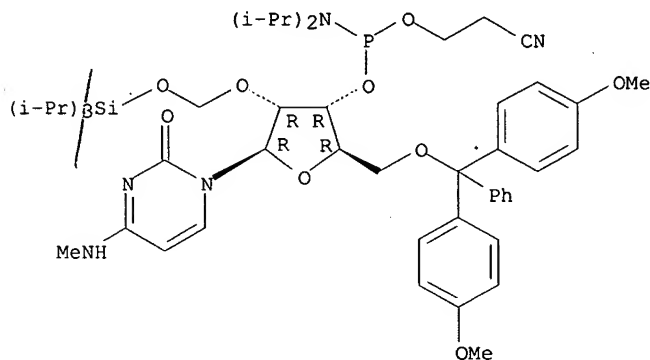
Absolute stereochemistry.



RN 661471-86-9 CAPLUS

CN Cytidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

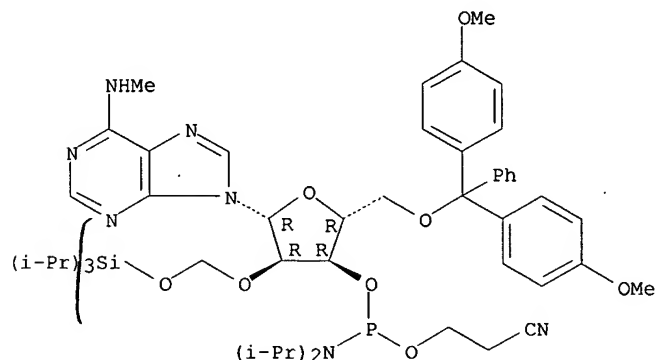
Absolute stereochemistry.



RN 661471-88-1 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-methyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

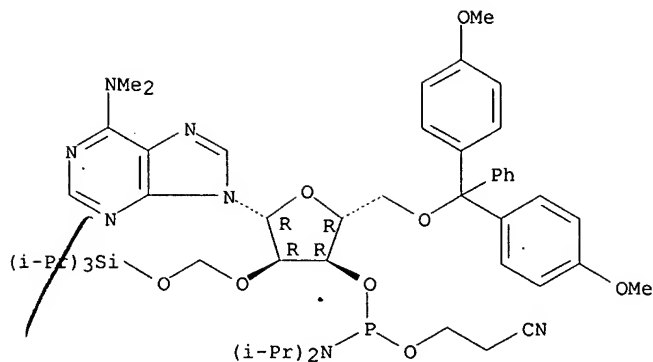
Absolute stereochemistry.



RN 661471-91-6 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N,N-dimethyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

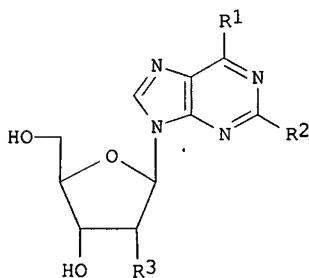
Absolute stereochemistry.



RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:794206 CAPLUS
DN 137:295195
TI Methods for synthesizing nucleosides, nucleoside derivatives and
non-nucleoside phosphoramidites and succinates
IN Beigelman, Leonid; Karpeisky, Alexander; Serebryany, Vladimir; Haeberli,
Peter; Sweedler, David
PA USA
SO U.S. Pat. Appl. Publ., 59 pp., Cont.-in-part of U.S. Ser. No. 944,554.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002150936	A1	20021017	US 2002-43951	20020111
	US 2002120129	A1	20020829	US 2001-944554	20010831
	US 6686463	B2	20040203		
	US 2005059817	A1	20050317	US 2004-947954	20040923
PRAI	US 2000-230057P	P	20000901		
	US 2001-286571P	P	20010425		
	US 2001-944554	A2	20010831		
	US 2002-43951	B1	20020111		
OS	CASREACT 137:295195				
GI					



I

AB The present invention provides methods for the chemical synthesis of nucleosides I wherein R1 and R2 are independently hydrogen, substituted amine, aminoalkyl, fluoro or chloro; R3 is independently alkyl, alkoxyalkyl, alkylthioalkyl, cyanoalkyl, or arylalkyl optionally substituted with up to three groups that are independently halogen, alkoxy, nitro, or alkyl; and derivs. thereof, including 2'-amino, 2'-N-phthaloyl, 2'-O-Me, 2'-O-silyl, 2'-OH nucleosides, C-nucleosides, nucleoside phosphoramidites, C-nucleoside phosphoramidites, and non-nucleoside derivs. The invention provides a universal method for the synthesis of 2'-deoxy-2'-aminopurine and pyrimidine nucleosides and

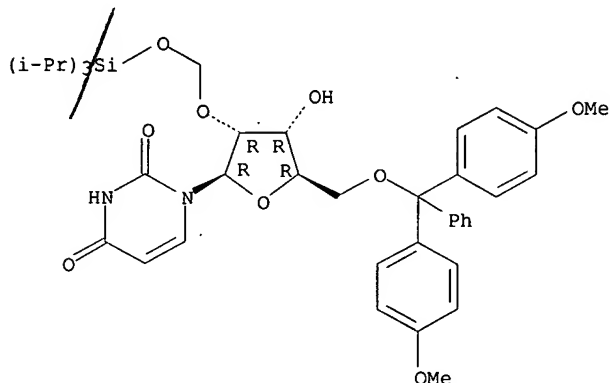
10/534,160

C-nucleosides that employs fewer synthetic steps, avoids the use of azides, and which concomitantly introduces N-phthaloyl protection of the 2'-amine. Thus, 5'-O-DMT-2'-deoxy-2'-N1-phthaloyl-N4-acetylcytidine 3'-O-(2-cyanoethyl-N,N-diisopropylphosphoramidite) was prepared

IT 220230-58-0P 220230-62-6P 312709-93-6P
468757-39-3P 468757-40-6P 468757-56-4P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(methods for synthesizing nucleosides, nucleoside derivs., and non-nucleoside phosphoramidites and succinates)

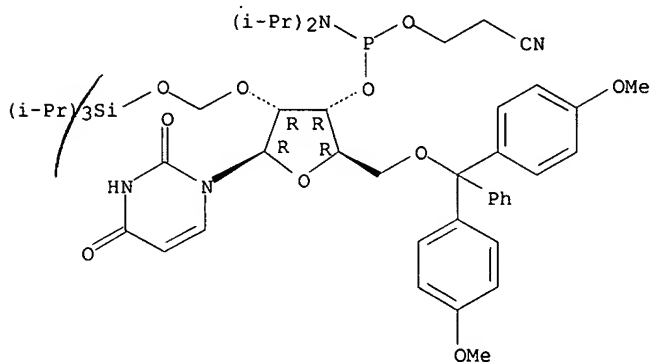
RN 220230-58-0 CAPLUS
CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



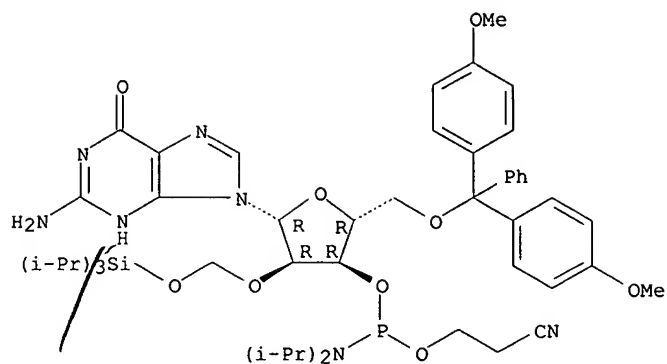
RN 220230-62-6 CAPLUS
CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 312709-93-6 CAPLUS
CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

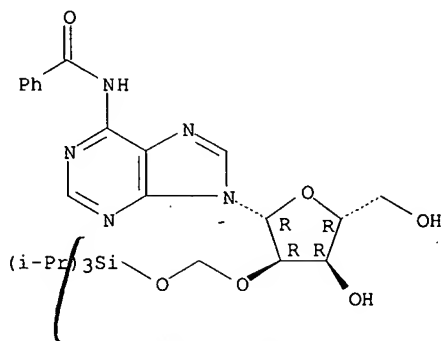
Absolute stereochemistry.



RN 468757-39-3 CAPLUS

CN Adenosine, N-benzoyl-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI)
(CA INDEX NAME)

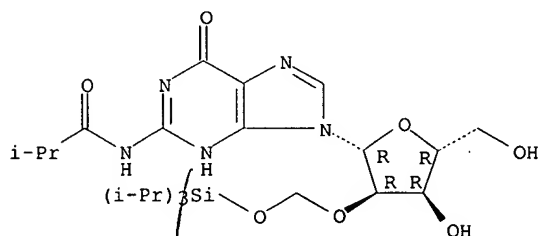
Absolute stereochemistry.



RN 468757-40-6 CAPLUS

CN Guanosine, N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

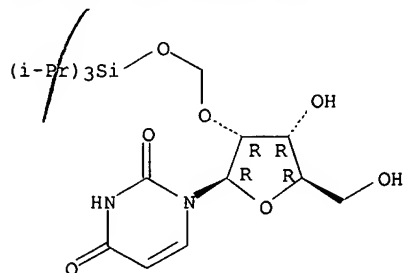
Absolute stereochemistry.



RN 468757-56-4 CAPLUS

CN Uridine, 2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2002:314950 CAPLUS
 DN 136:325787
 TI Preparation of oligodeoxyribonucleotide phosphinoamidite carboxylates and
 analogs having reduced internucleotide charge and enhanced nuclease
 resistance
 IN Dellinger, Douglas J.
 PA USA
 SO PCT Int. Appl., 104 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002032912	A2	20020425	WO 2001-US32465	20011016
	WO 2002032912	A3	20030313		
	W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW		
	RW:		GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	US 6693187	B1	20040217	US 2000-691824	20001017
	EP 1334111	A2	20030813	EP 2001-983160	20011016
	R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR		
	US 2004116687	A1	20040617	US 2003-721301	20031124
	US 7067641	B2	20060627		
	US 2006293511	A1	20061228	US 2006-431373	20060509
PRAI	US 2000-691824	A	20001017		
	WO 2001-US32465	W	20011016		
	US 2003-721301	A3	20031124		

OS MARPAT 136:325787

AB Phosphinoamidite carboxylates and analogs are provided that have the structure of formula R1-X-C(:Z)-(Y)n-P(R4)NR2R3 (I) were prepared wherein, R1 is hydrogen, protecting group, hydrocarbyl, substituted hydrocarbyl, heteroatom-containing hydrocarbyl or substituted heteroatom-containing hydrocarbyl; R2 and R3 are independently hydrocarbyl, substituted hydrocarbyl, heteroatom-containing hydrocarbyl and substituted heteroatom-containing hydrocarbyl, or R2 and R3 are linked to form a substituted or unsubstituted, five- or six-membered nitrogen-containing heterocycle; R4 is NR5R6, halogen, DL; wherein R5 and R6 are independently hydrocarbyl, substituted hydrocarbyl, heteroatom-containing hydrocarbyl and substituted heteroatom-containing hydrocarbyl, or R5 and R6 are linked to form a substituted or unsubstituted, five- or six-membered nitrogen-containing heterocycle, D is O, S or NH, and L is a heteroatom-protecting group, unsubstituted hydrocarbyl, substituted hydrocarbyl, heteroatom-containing hydrocarbyl, or substituted heteroatom-containing hydrocarbyl; X is O, S, NH; n is zero or 1; Y is alkyl, heterocycle; Z is O, S, NH. The compds. are useful as phosphitylating agents, e.g., in the phosphitylation of 3' and 5' hydroxyl groups of nucleosides and oligonucleotides. Also provided are phosphonocarboxylate and H-phosphonite carboxylate analogs of the compds. of formula I. The compds. enable synthesis of phosphinocarboxylate and phosphonocarboxylate oligonucleotides having reduced internucleotide charge and enhanced nuclease resistance.

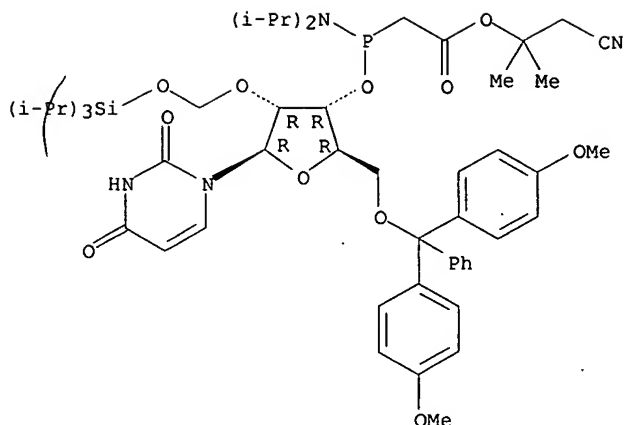
IT 411234-27-0P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of oligodeoxyribonucleotide phosphinoamidite carboxylates and analogs having reduced internucleotide charge and enhanced nuclease resistance)

RN 411234-27-0 CAPLUS

CN Uridine, 5'-O-[[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[P-(2-(2-cyano-1,1-dimethylethoxy)-2-oxoethyl)-N,N-bis(1-methylethyl)phosphonamidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 220230-58-0

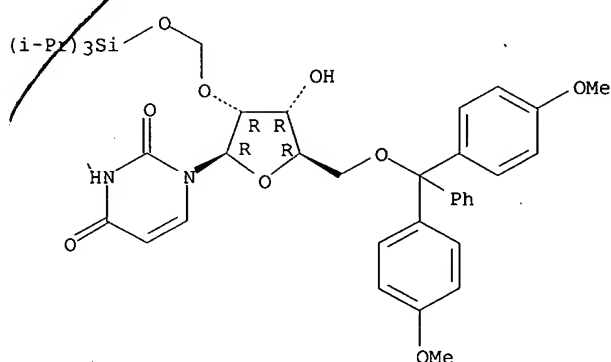
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of oligodeoxyribonucleotide phosphinoamidite carboxylates and analogs having reduced internucleotide charge and enhanced nuclease resistance)

RN 220230-58-0 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L4 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:100143 CAPLUS

DN 136:355418

TI Reliable chemical synthesis of oligoribonucleotides (RNA) with 2'-O-[(triisopropylsilyl)oxy]methyl(2'-O-tom)-protected phosphoramidites

AU Pitsch, Stefan; Weiss, Patrick A.; Jenny, Luzi; Stutz, Alfred; Wu, Xiaolin

CS Laboratorium für Organische Chemie, ETHZ, Zurich, CH-8092, Switz.

SO Helvetica Chimica Acta (2001), 84(12), 3773-3795

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

OS CASREACT 136:355418

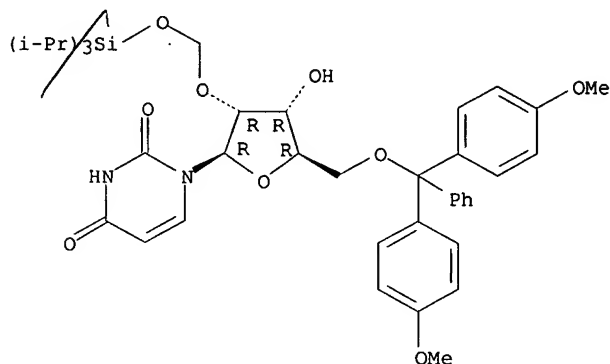
AB A method for the introduction of the 2'-O-[(triisopropylsilyl)oxy]methyl (=tom) group into N-acetylated, 5'-O-dimethoxytritylated ribonucleosides is presented. The corresponding 2'-O-tom-protected phosphoramidite building blocks were obtained in pure form and were successfully employed for the routine synthesis of oligoribonucleotides on DNA synthesizers. Under DNA coupling conditions (2.5 min coupling time for a 1.5-μmol synthesis scale) and with 5-(benzylthio)-1H-tetrazole (BTT) as activator. 2'-O-tom-protected phosphoramidites exhibited average coupling yields >99.4%. The combination of N-acetyl and 2'-O-tom protecting groups allowed a reliable and complete two-step deprotection, first with MeNH₂ in EtOH/H₂O and then with Bu₄NF in THF, without concomitant destruction of the product

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RNA sequences.

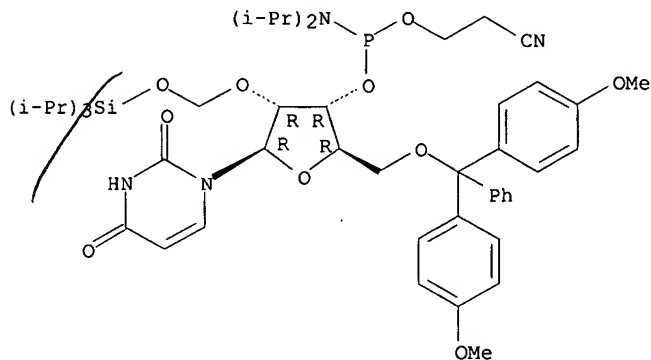
IT 220230-58-0P 220230-62-6P 253586-12-8P
253586-13-9P 253586-14-0P 253586-21-9P
253586-22-0P 253586-23-1P 415707-19-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of using [(triisopropylsilyl)oxy)methyl 2'-O-protecting group)
RN 220230-58-0 CAPLUS
CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-
methylethyl)silyl]oxy)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



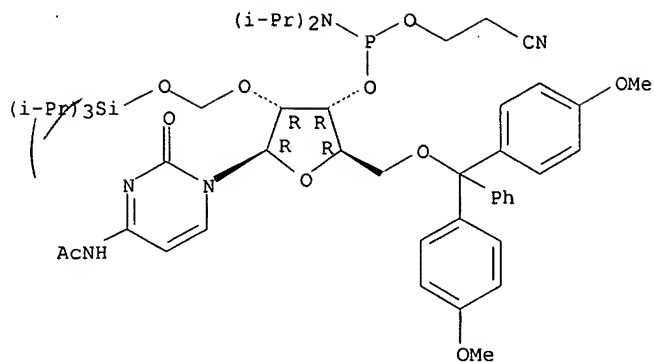
RN 220230-62-6 CAPLUS
CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-
methylethyl)silyl]oxy)methyl]-, 3'-[2-cyanoethyl bis(1-
methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 253586-12-8 CAPLUS
CN Cytidine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-
methylethyl)silyl]oxy)methyl]-, 3'-[2-cyanoethyl bis(1-
methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

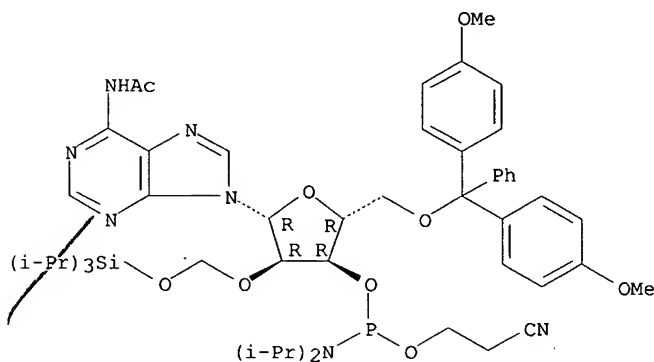
Absolute stereochemistry.



RN 253586-13-9 CAPLUS

CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

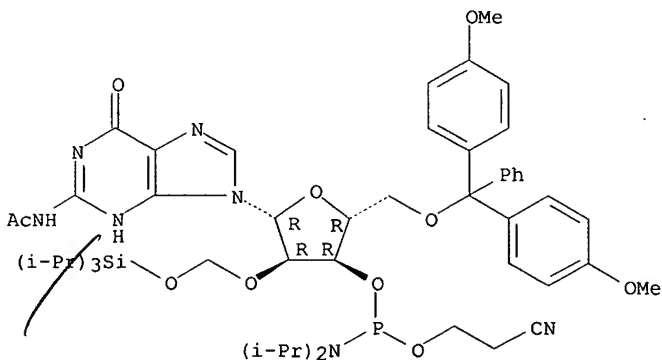
Absolute stereochemistry.



RN 253586-14-0 CAPLUS

CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

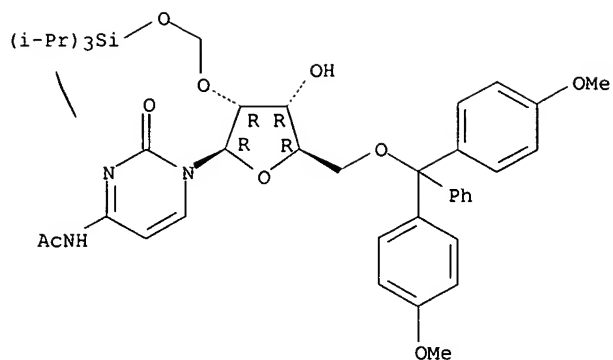


RN 253586-21-9 CAPLUS

CN Cytidine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

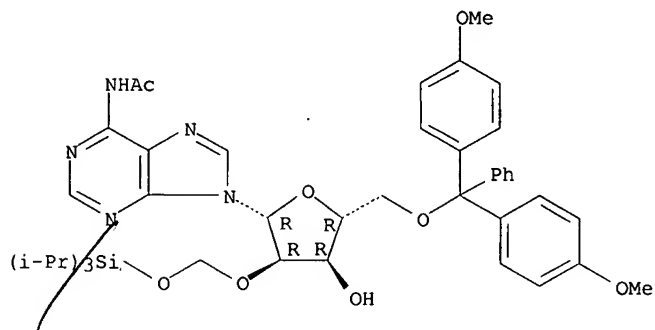
10/534,160



RN 253586-22-0 CAPLUS

CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

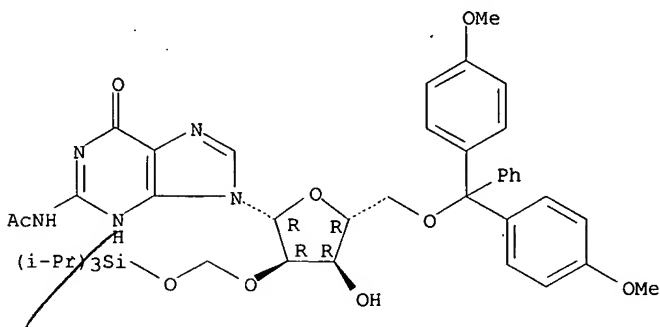
Absolute stereochemistry. Rotation (+).



RN 253586-23-1 CAPLUS

CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

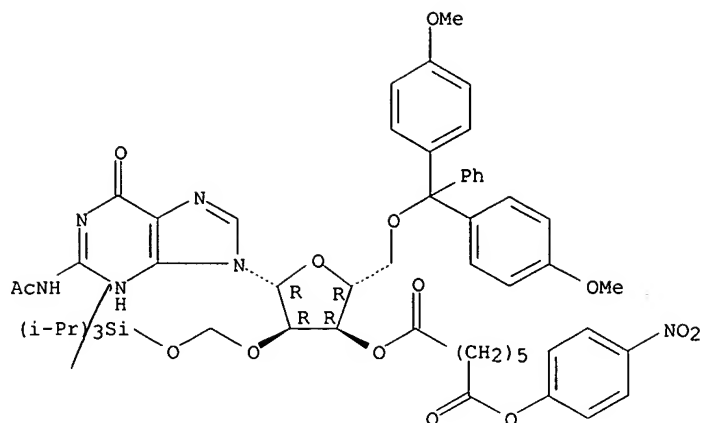
Absolute stereochemistry. Rotation (+).



RN 415707-19-6 CAPLUS

CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-(4-nitrophenyl heptanedioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

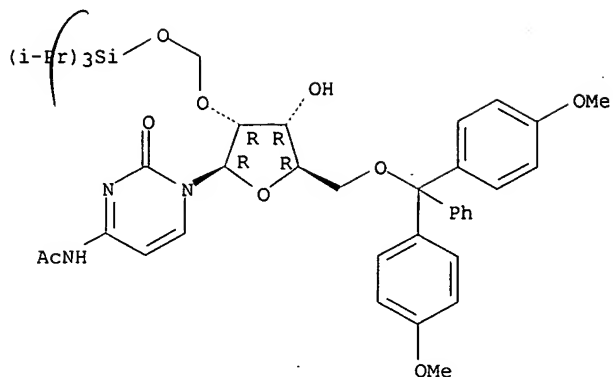


RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:748508 CAPLUS
DN 134:42377
TI Novel fluoride-labile nucleobase-protecting groups for the synthesis of
3'-(2')-O-amino-acylated RNA sequences
AU Stutz, Alfred; Hobartner, Claudia; Pitsch, Stefan
CS Laboratorium für Organische Chemie, ETH-Zentrum, Zurich, CH-8092, Switz.
SO Helvetica Chimica Acta (2000), 83(9), 2477-2503
CODEN: HCACAV; ISSN: 0018-019X
PB Verlag Helvetica Chimica Acta
DT Journal
LA English
OS CASREACT 134:42377
AB With the aim to develop a general approach to a total synthesis of
amino-acylated t-RNAs and analogs, we describe the synthesis of
stabilized, amino-acylated RNA fragments, which, upon ligation, could lead
to amino-acylated t-RNA structures. Novel RNA phosphoramidites with
fluoride-labile 2'-O-[(triisopropylsilyl)-oxy]methyl (=tom)
sugar-protecting and N-[(2-[(triisopropylsilyl)-oxy]benzyl)oxy]carbonyl
(=tboc) base-protecting groups were prepared, as well as a solid support
containing an immobilized N6-tboc-protected adenosine with an orthogonal
(photolabile) 2'-O-[(S)-1-(2-nitrophenyl)ethoxy]methyl (=S)-npeom group.
From these building blocks, a hexameric oligoribonucleotide was prepared by
automated synthesis under standard conditions. After the detachment from the
solid support, the resulting fully protected sequence was amino-acylated
with L-phenylalanine derivs. carrying photolabile N-protecting groups.
Upon removal of the fluoride-labile sugar- and nucleobase-protecting
groups, the still stabilized, partially with the photolabile group
protected precursors of an amino-acylated RNA sequence were obtained.
Photolysis under mild conditions resulted in the efficient formation of
the 3'-(2')-O-amino-acylated RNA sequence. Addnl., we carried out model
investigations concerning the stability of ester bonds of amino-acylated
ribonucleotide derivs. under acidic conditions and established conditions
for the purification and handling of 3'-(2')-O-amino-acylated RNA sequences and
their stabilized precursors.
IT 253586-21-9 253586-23-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of fluoride labile nucleobase protecting groups for the
synthesis of 3'-(2')-O-amino-acylated RNA sequences)
RN 253586-21-9 CAPLUS
CN Cytidine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-
methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

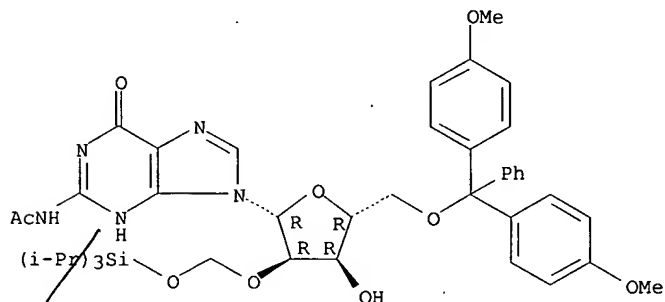
10/534,160



RN 253586-23-1 CAPLUS

CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 312709-86-7P 312709-87-8P 312709-88-9P
312709-90-3P 312709-91-4P 312709-92-5P
312709-93-6P 312709-94-7P 312709-95-8P

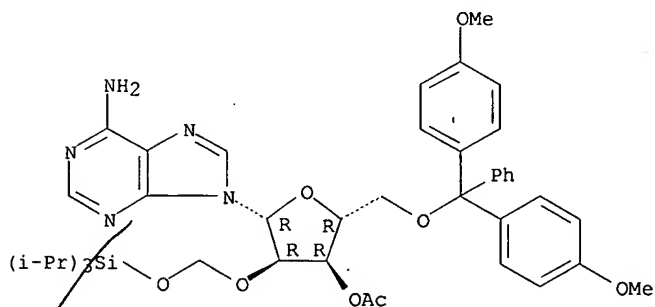
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of fluoride labile nucleobase protecting groups for the synthesis of 3'(2')-O-amino-acylated RNA sequences)

RN 312709-86-7 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

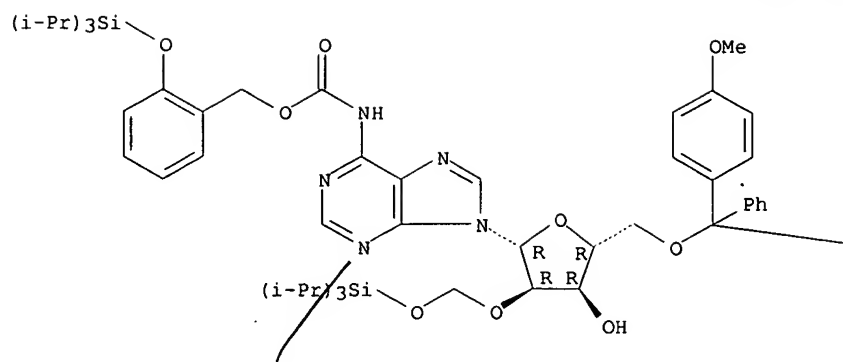


RN 312709-87-8 CAPLUS

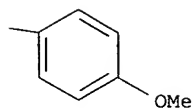
CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-N-[[[2-[[[tris(1-methylethyl)silyl]oxy]phenyl]methoxy]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

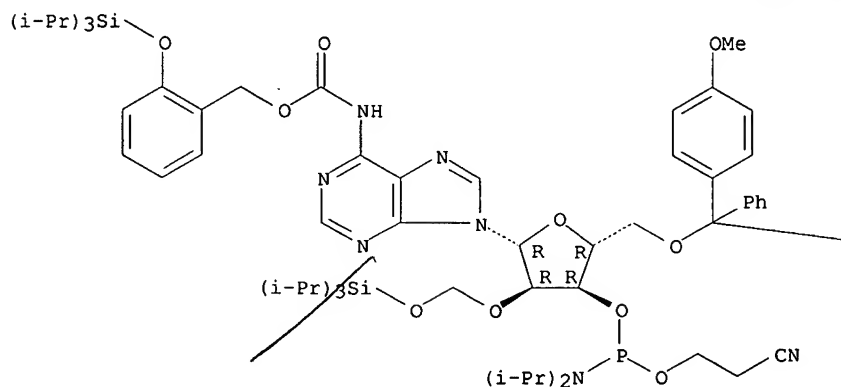


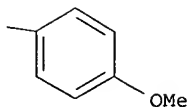
RN 312709-88-9 CAPLUS

CN Adenosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-N-[[[2-[[[tris(1-methylethyl)silyl]oxy]phenyl]methoxy]carbonyl]]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

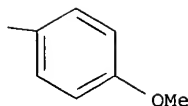
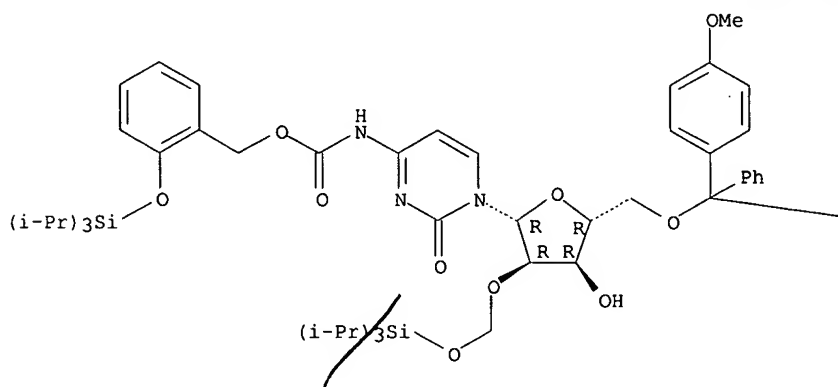




RN 312709-90-3 CAPLUS

CN Cytidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy)methyl]-N-[[[2-[[[tris(1-methylethyl)silyl]oxy]phenyl]methoxy]carbonyl]- (9CI) (CA INDEX NAME)

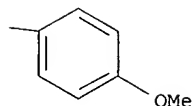
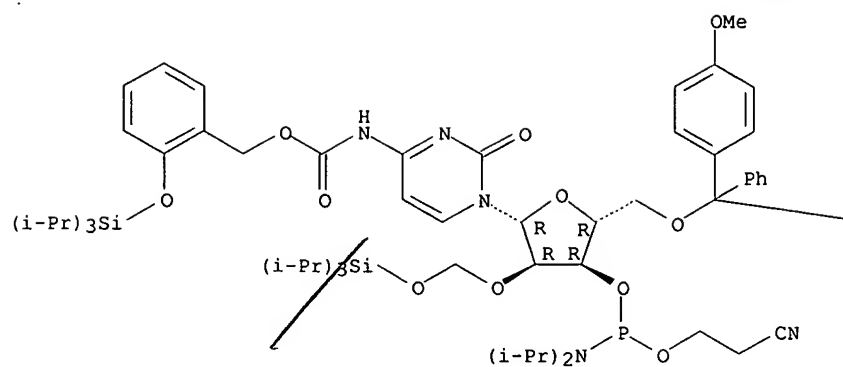
Absolute stereochemistry.



RN 312709-91-4 CAPLUS

CN Cytidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy)methyl]-N-[[[2-[[[tris(1-methylethyl)silyl]oxy]phenyl]methoxy]carbonyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

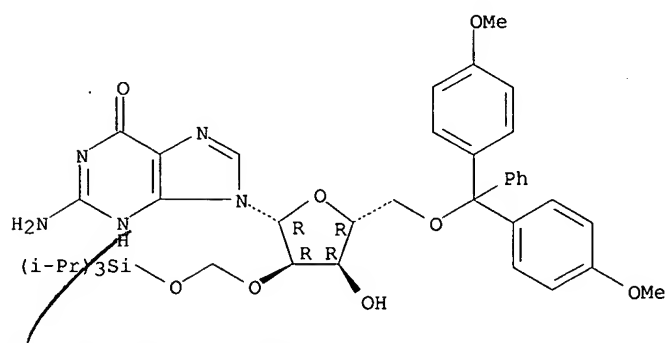
Absolute stereochemistry.



RN 312709-92-5 CAPLUS

Guanosine, 5'-O-[[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

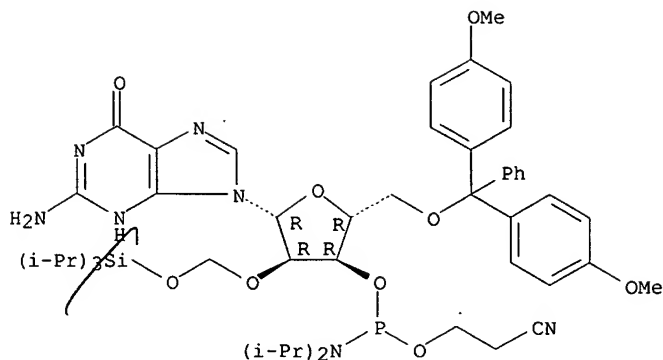
Absolute stereochemistry.



RN 312709-93-6 CAPLUS

Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

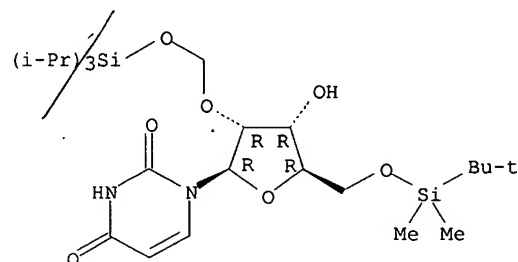
Absolute stereochemistry.



RN 312709-94-7 CAPLUS

CN Uridine, 5'-O-[(1,1-dimethylethyl)dimethylsilyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

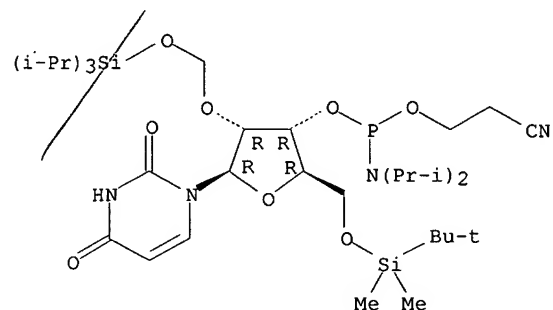
Absolute stereochemistry.



RN 312709-95-8 CAPLUS

CN Uridine, 5'-O-[(1,1-dimethylethyl)dimethylsilyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 253586-22-0

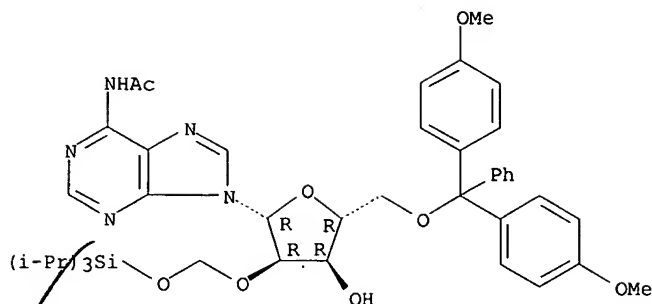
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of fluoride labile nucleobase protecting groups for the synthesis of 3'(2')-O-amino-acylated RNA sequences kinetics)

RN 253586-22-0 CAPLUS

CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

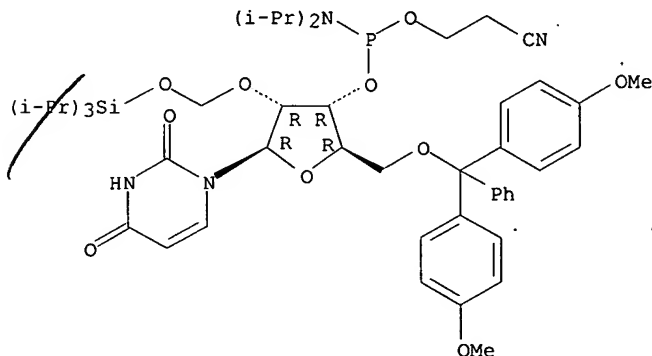
Absolute stereochemistry. Rotation (+).



RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:693437 CAPLUS
DN 132:208085
TI Fast and reliable automated synthesis of RNA and partially 2'-O-protected precursors ("caged RNA") based on two novel, orthogonal 2'-O-protecting groups
AU Pitsch, Stefan; Weiss, Patrick A.; Wu, Xiaolin; Ackermann, Damian; Honegger, Thomas
CS Laboratorium für Organische Chemie, ETH-Zentrum, Zurich, CH-8092, Switz.
SO Helvetica Chimica Acta (1999), 82(10), 1753-1761
CODEN: HCACAV; ISSN: 0018-019X
PB Verlag Helvetica Chimica Acta
DT Journal
LA English
OS CASREACT 132:208085
AB Two sets of RNA phosphoramidites, carrying the (fluoride-labile) 2'-O-[(triisopropylsilyl)oxy]methyl (tom) group and the (photolabile) [(R)-1-(2-nitrophenyl)ethoxy]methyl ((R)-npeom) group, were prepared. The two protecting groups were completely orthogonal to each other. Three ribozyme-substrate constructs, protected each by a (R)-npeom group, were synthesized; on photolysis, efficient cleavage of this remaining protecting group occurred. It could be demonstrated that the presence of one (R)-npeom group within a RNA strand has only a minor influence on the pairing properties of corresponding duplexes.
IT 220230-62-6 253586-12-8 253586-13-9
253586-14-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(fast and reliable automated synthesis of RNA and partially protected precursors ("caged RNA") based on two novel orthogonal 2'-O-protecting groups)
RN 220230-62-6 CAPLUS
CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

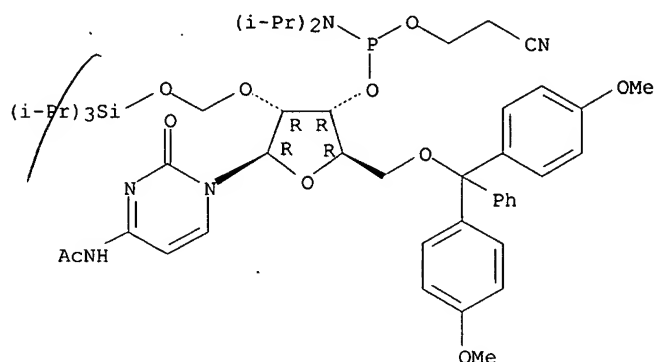


RN 253586-12-8 CAPLUS
CN Cytidine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-

10/534,160

methylethyl)silyl]oxy)methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

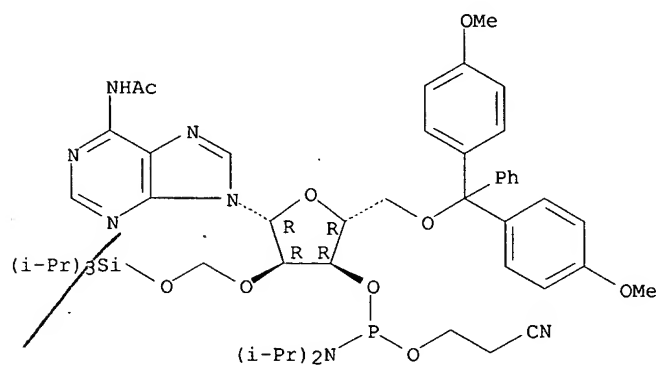
Absolute stereochemistry.



RN 253586-13-9 CAPLUS

CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy)methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

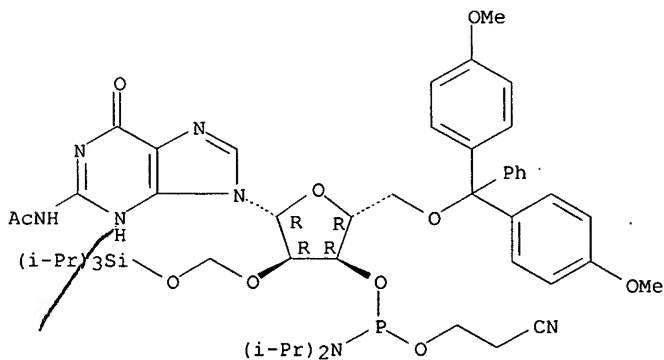
Absolute stereochemistry.



RN 253586-14-0 CAPLUS

CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy)methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 220230-58-0P 253586-21-9P 253586-22-0P
253586-23-1P

McIntosh

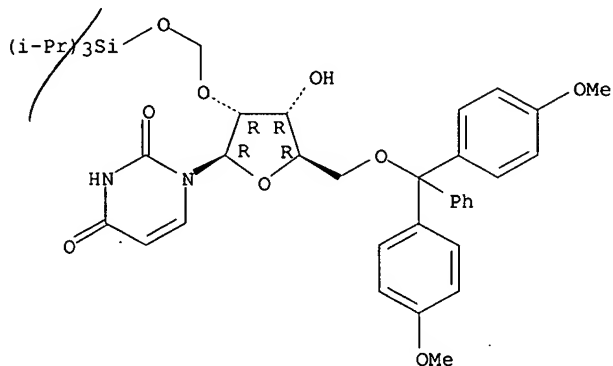
10/534,160

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(fast and reliable automated synthesis of RNA and partially protected precursors ("caged RNA") based on two novel orthogonal 2'-O-protecting groups)

RN 220230-58-0 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

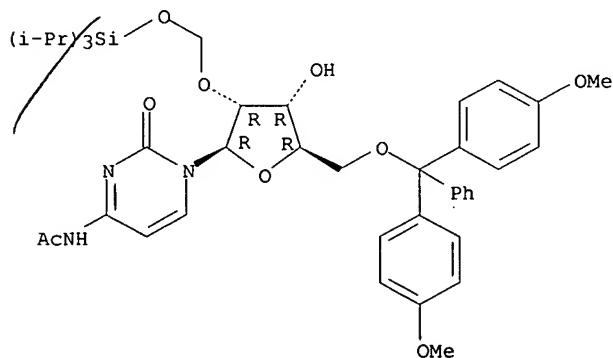
Absolute stereochemistry. Rotation (+).



RN 253586-21-9 CAPLUS

CN Cytidine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

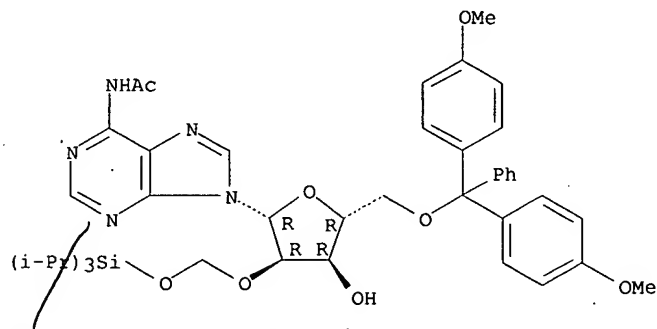
Absolute stereochemistry. Rotation (+).



RN 253586-22-0 CAPLUS

CN Adenosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



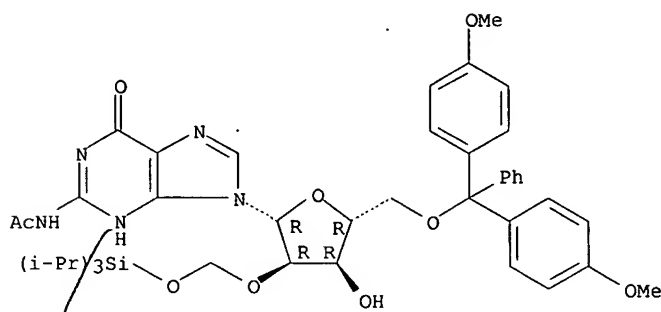
RN 253586-23-1 CAPLUS

McIntosh

10/534,160

CN Guanosine, N-acetyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

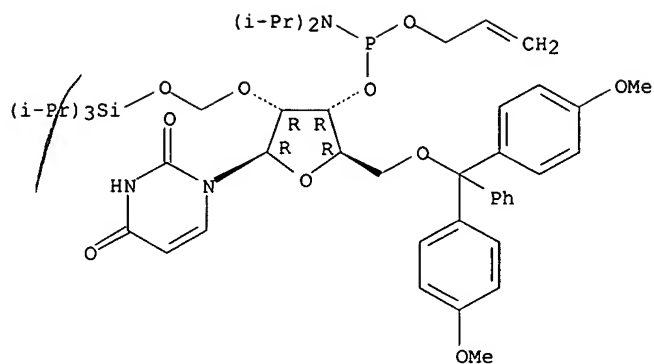
Absolute stereochemistry. Rotation (+).



RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:442449 CAPLUS
DN 131:130219
TI Cyclic oligoribonucleotides (RNA) by solid-phase synthesis
AU Micura, Ronald
CS Laboratorium fur Organische Chemie der Eidgenossischen Technischen
Hochschule Universitatstrasse 16, Zurich, CH-8092, Switz.
SO Chemistry--A European Journal (1999), 5(7), 2077-2082
CODEN: CEUJED; ISSN: 0947-6539
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB A novel solid-phase synthesis of small- to medium-sized cyclic RNA
oligonucleotides is presented. A major advantage of the approach is the
lack of restrictions on the sequence variety with respect to the four standard
bases adenine, cytosine, guanine, and uracil. This has been demonstrated
for cycles containing 2 to 21 nucleotide units. The approach allows fully
automated assembly, and is related to a procedure known for the preparation of
cyclic oligonucleotides in the DNA series. It combines standard
phosphoramidite chemical for chain elongation and standard phosphotriester chemical
for ring closure. A key aspect of the method is use of the novel
2'-O-triisopropylsilyloxymethyl (TOM) protected RNA phosphoramidites
instead of the classic tert-butyldimethylsilyl (TBDMS) protected amidites.
Furthermore, the design of the final cleavage step is selective only for
correctly cyclized oligoribonucleotides. This results, after
deprotection, in HPLC profiles in which the crude oligonucleotide is
represented by the major peak with typically more than 80% of the
integrated area. The ring closure itself proceeds with an average yield of
15%.
IT 232933-71-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclic oligoribonucleotides RNA by solid phase synthesis using
2'-O-triisopropylsilyloxymethyl (TOM) protecting group)
RN 232933-71-0 CAPLUS
CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-
methylethyl)silyl]oxy]methyl]-, 3'-[2-propenyl bis(1-
methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

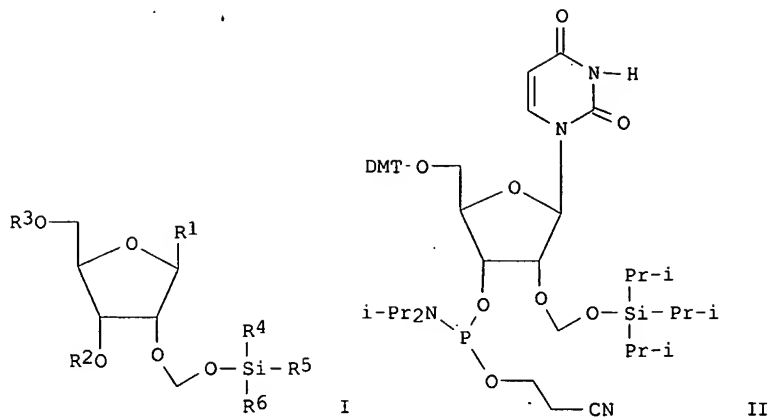
Absolute stereochemistry.



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:139859 CAPLUS
DN 130:168606
TI Preparation of RNA using triple substituted silyloxymethyl-group as a
protection-group of sugar moiety
IN Pitsch, Stefan; Weiss, Patrick A.; Jenny, Luzi
PA Switz.
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9909044	A1	19990225	WO 1998-EP5215	19980817
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 5986084	A	19991116	US 1997-965780	19971107
AU 9895321	A	19990308	AU 1998-95321	19980817
EP 1005478	A1	20000607	EP 1998-948841	19980817
EP 1005478	B1	20030122		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE, FI				
JP 2001515087	T	20010918	JP 2000-509723	19980817
AT 231518	T	20030215	AT 1998-948841	19980817
ES 2191343	T3	20030901	ES 1998-948841	19980817
PRAI CH 1997-1931	A	19970818		
WO 1998-EP5215	W	19980817		
OS MARPAT 130:168606				
GI				



AB The ribonucleoside-derivs. serve for the synthesis of ribonucleic acids and comprise a triple substituted silyloxymethyl-group as a protection-group on the oxygen atom in 2'-position. The ribonucleoside-derivs. may be suitably protected on the nucleobase and on the oxygen in 5'-position also. The new protection-groups in 2'-O-position are superior to conventional such protection the groups as they are not subject to isomerization and give higher coupling yields. Ribonucleoside I whereby R1 is a base of the purine- or pyrimidine-family or a derivative of such a base, R2 is a proton or a substituted derivative of phosphonic acid, R3 is a proton or a suitable protection-group, R4, R5, R6 are advantageously three identical or different alkyl- or aryl-substituents which together comprise between 6 and 30 carbons atoms. were prepared and used in the synthesis of RNA. Thus, nucleoside phosphoramidite II was prepared and used in the synthesis of RNA.

IT 220230-55-7P 220230-56-8P 220230-57-9P
220230-58-0P 220230-59-1P 220230-60-4P
220230-61-5P 220230-62-6P

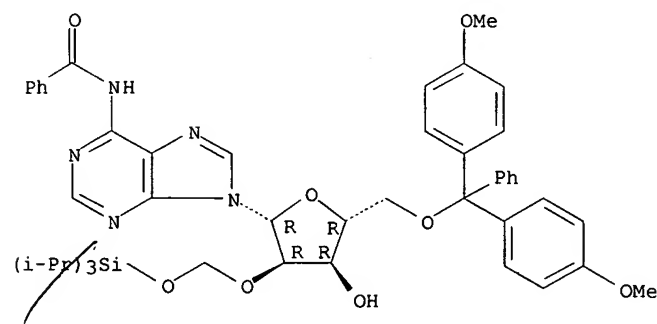
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of RNA using triple substituted silyloxymethyl-group as a protection-group of sugar moiety)

RN 220230-55-7 CAPLUS

CN Adenosine, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

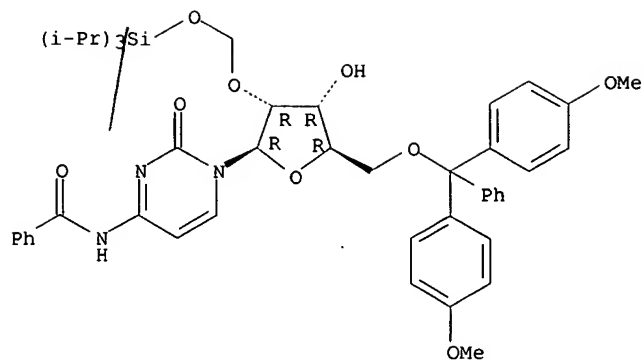
Absolute stereochemistry.



RN 220230-56-8 CAPLUS

CN Cytidine, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

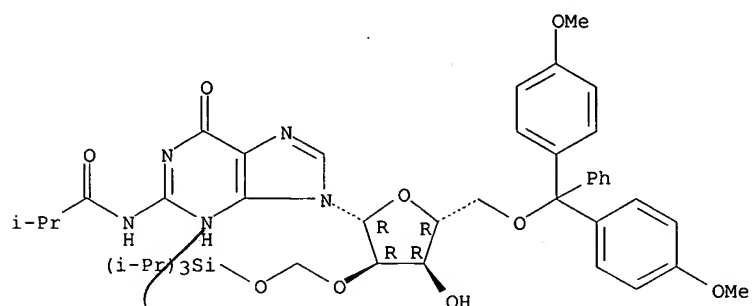
Absolute stereochemistry.



RN 220230-57-9 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

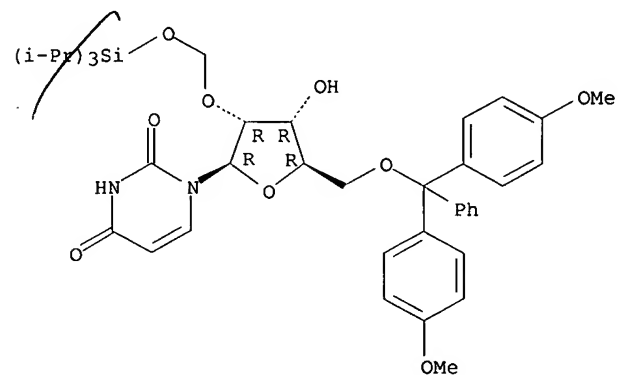
Absolute stereochemistry.



RN 220230-58-0 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]- (9CI) (CA INDEX NAME)

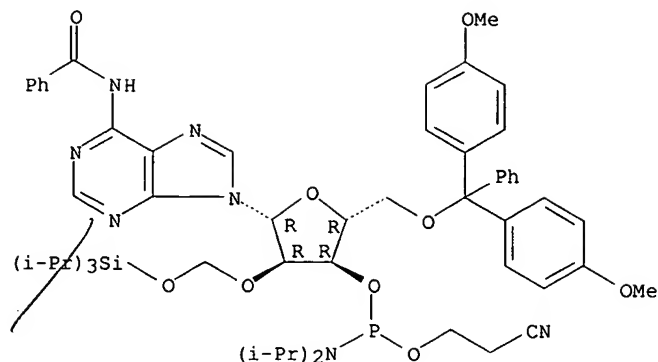
Absolute stereochemistry. Rotation (+).



RN 220230-59-1 CAPLUS

CN Adenosine, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

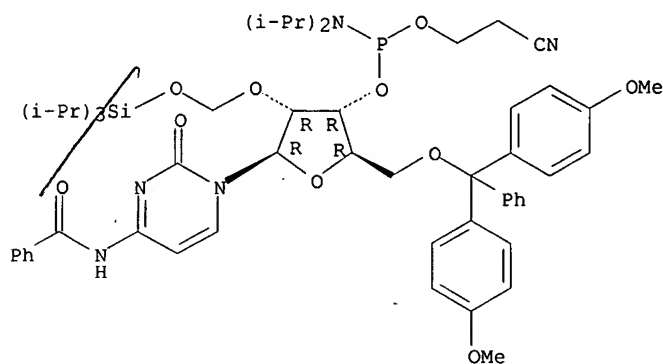
Absolute stereochemistry.



RN 220230-60-4 CAPLUS

CN Cytidine, N-benzoyl-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

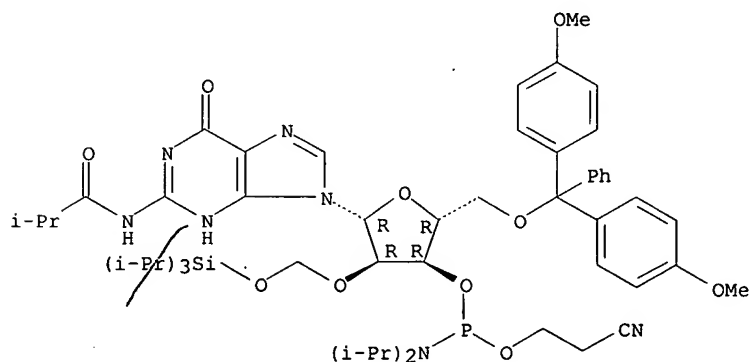
Absolute stereochemistry.



RN 220230-61-5 CAPLUS

CN Guanosine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-N-(2-methyl-1-oxopropyl)-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

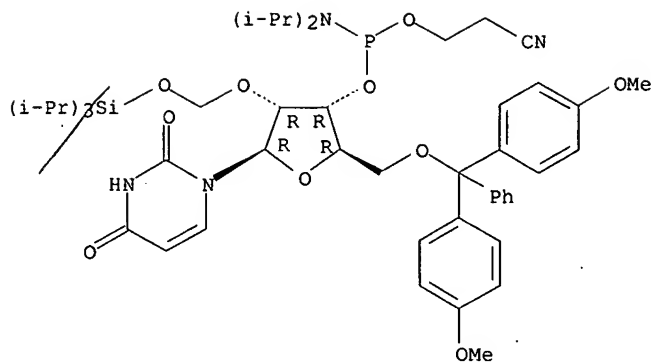


RN 220230-62-6 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-O-[[[tris(1-methylethyl)silyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

10/534,160



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 17:24:56 ON 29 MAR 2007)

FILE 'REGISTRY' ENTERED AT 17:25:22 ON 29 MAR 2007

L1 STRUCTURE UPLOADED

L2 10 S L1 SSS SAM

L3 136 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 17:25:52 ON 29 MAR 2007

L4 19 S L3

10/534,160

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L5 0 US 20060173173/PN
(US2006173173/PN)

=> s us 2006173173/pn
L6 0 US 2006173173/PN
(US2006173173/PN)

=> s 2006173173/pn
L7 0 2006173173/PN

=> s 20060173173/pn
L8 0 20060173173/PN

=> s us20060173173/pn
L9 0 US20060173173/PN
(US2006173173/PN)

*try ing to
extract res #1's
& my app is
not coming up
(Searched RG Pub)*

McIntosh

10/534,160

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PASSWORD:

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FULL ESTIMATED COST	12.40	286.72
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CA SUBSCRIBER PRICE	0.00	-14.82

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(WO2004049274/PN)

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2235 WO
33 WOS
2264 WO
(WO OR WOS)
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L11 0 WO 2004049274
(WO(W)2004049274)

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L13 0 04049274/PN

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104 VICINALS
L14 13841 VICINAL
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4856 RIBONUCLEOSIDE
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L17 1 L15 AND PHOSPHORIC

=> d bib

L17 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:423920 CAPLUS
DN 111:23920

McIntosh

*Searched
for PCT*

*Searched
for my
app w/ keywords
- my app not found*

10/534,160

TI A process for synthesis of branched trinucleotides containing
vicinal 2'-5' and 3'-5'-phosphodiester linkages
IN Hayakawa, Yoshihiro; Noyori, Ryoji; Nobori, Tadahito
PA Nippon Zeon Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63287795	A	19881124	JP 1987-122200	19870519
PRAI	JP 1987-122200		19870519		
OS	MARPAT 111:23920				

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=> s l14 and phosphoric

101608 PHOSPHORIC

2 PHOSPHORICS

101609 PHOSPHORIC

(PHOSPHORIC OR PHOSPHORICS)

L18 37 L14 AND PHOSPHORIC

=> s l18 and substituent

112577 SUBSTITUENT

102688 SUBSTITUENTS

185566 SUBSTITUENT

(SUBSTITUENT OR SUBSTITUENTS)

L19 1 L18 AND SUBSTITUENT

=> d bib

L19 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1963:82215 CAPLUS

DN 58:82215

OREF 58:14146c-g

TI Phosphorus-containing poly-p-xylylenes and related polymers

IN Errede, Louis A.

PA Minnesota Mining and Manufacturing Co.

SO 15 pp.

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 920515		19630306	GB 1959-33679	19591005
PRAI	GB		19591005		